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PUBLICATIONS

OF THE

FIELD COLUMBIAN MUSEUM

13
REPORT SERIES

VOLUME I



CHICAGO, U. S. A.

1894-1900.

FIELD COLUMBIAN MUSEUM

PUBLICATION 6

REPORT SERIES.

VOL. I, No. I.

ANNUAL REPORT OF THE DIRECTOR

TO THE

BOARD OF TRUSTEES

14883

FOR THE YEAR 1894-95



CHICAGO, U. S. A.

October, 1895.

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ANNUAL REPORT OF THE DIRECTOR.

1894-1895.

To the Trustees and Members of the Field Columbian Museum.

I have the honor to present a report of the operations of the Museum for the year closing September 30, 1895. Much of the work of this first full year has necessarily been of a preparatory character and of systematizing the methods for conducting the affairs of the Institution. Necessarily also from the very nature of the circumstances under which the original installation was accomplished, much re-arrangement and re-adjustment has been carried on in all of the departments. And as to the building itself and its interior arrangement, considerable reconstruction and re-adaptation has been demanded to render the building more fit for the unexpected uses to which it is now devoted. Viewing its present condition, it would seem almost as if nothing had been done. And yet in contemplating what has been accomplished from the commencement, the criticism of idleness will certainly not fall upon the executive force.

INCOME AND MAINTENANCE.—In accordance with the instructions of the Executive Committee, the Director prepared in January last a budget of the income and cost of maintenance for the actual year of 1895. The total estimated income for the year was \$70,770. The estimated expense for the year was \$104,296. An effort has been made to increase the revenue and decrease the expenses, with the result that by taking the actual figures for nine months of the year to October 1, and estimating very carefully and conservatively the figures likely to be made for the three remaining months, it is found that the income for 1895 will be \$74,095, and that the cost of maintenance for 1895 will be \$80,672, a very gratifying contrast with the estimate made the first of the year. These figures do not include special cash donations, nor do they include special appropriations for material and permanent improvements made by the Executive Committee.

THE MEMBERSHIPS.—The By-laws published elsewhere in this report explain the different characters of memberships and disclose the conditions under which they may be secured. Under the direction of the Secretary of the Corporation, nominations for Annual Mem-

berships were made in quite large numbers at the beginning of this year, and thus far 723 persons have accepted election. Besides securing to the Museum an effective constituency in many ways, these memberships provide a very considerable annual revenue, and it is believed that with proper effort the number may be largely augmented from year to year. Only one Honorary Life Member has been elected, Professor Charles B. Cory, of Boston, and thus far but one Life Member has been elected, Mr. Wm. J. Chalmers, of Chicago. Mr. Allison V. Armour has been elected a Patron.

LECTURE COURSES.—The lecture courses were inaugurated in December, 1894. Since that date four courses have been projected, numbering altogether twenty-seven lectures. Most of these lectures have been illustrated by stereopticon views, for which special apparatus was purchased by the Museum. The first three courses were given during the season of 1894-95. For lecturers the Museum depended primarily upon the Curators of the Museum, but the courses were augmented both in extent and interest by lecturers from the University of Chicago, the Museum of Archeology of the Ohio University; the Chicago Academy of Sciences; Lake Forest University; the Geographical Society of California, etc.

Admission to these lectures was free to the public, although for the first two lectures of the first course complimentary admission tickets were sent to the officials and constituency of the Museum. As this was found to entail considerable extra expense and trouble, however, the method was abandoned and the doors were thrown open to the public indiscriminately.

The first course, as given, was as follows:

- Dec. 15.—“A Trip to Greenland.” (Illustrated).
Prof. T. C. Chamberlain, University of Chicago.
- Dec. 22.—“Movements of the Earth’s Surface.”
Prof. R. D. Salisbury, University of Chicago.
- Jan. 5.—“How Gold Occurs in Nature.”
H. W. Nichols, Curator of Economic Geology, Field
Columbian Museum.
- Jan. 12.—“The Ancient Volcanoes of the Yellowstone.” (Illustrated).
Prof. J. P. Iddings, University of Chicago.
- Jan. 19.—“The Extraction of Iron from Its Ores.” (Illustrated).
H. W. Nichols.
- Jan. 26.—“History of Gold Mining in the United States.”
Prof. R. A. F. Penrose, University of Chicago.

These lectures were well attended at the start, but during the coldest weather showed some diminution in numbers present. As the

courses proceeded, however, and as, through the aid of the press of Chicago, the value of the lectures was brought more prominently before the public, the attendance gradually grew larger, and in the next course the lecture hall was invariably crowded beyond its seating capacity.

The second course was as follows:

- Feb. 2.—“Pre-Columbian Man in Ohio.” (Illustrated).
Warren K. Moorehead, Curator of Archeology, Ohio State University, etc.
- Feb. 9.—“Life Among the Cliff Dwellers.” (Illustrated).
Warren K. Moorehead.
- Feb. 16.—“The Story of a Birch Tree.”
Dr. Selim H. Peabody, President Chicago Academy of Sciences.
- Feb. 23.—“The Other Half of the Discovery.” (Illustrated).
Edward Morris Brigham, formerly connected with the Smithsonian Institution.
- Mar. 2.—“Theories of Evolution.”
Prof. John M. Coulter, President of Lake Forest University.
- Mar. 9.—“The Fishes of Illinois and Adjacent Regions.” (Illustrated).
Dr. O. P. Hay, Assistant Curator of Ichthyology, Field Columbian Museum.
- Mar. 16.—“The Structure and Constitution of Meteorites.” (Illustrated).
Prof. O. C. Farrington, Curator of Geology, Field Columbian Museum.

The third course was as follows:

- Mar. 23.—“Giants of Other Days as Revealed in the Zoology of the Past.”
Part 1. “Reptiles.” (Illustrated).
Prof. D. G. Elliot, Curator of Zoology, Field Columbian Museum.
- Mar. 30.—“Giants of Other Days.”
Part 2. “Birds and Mammals.” (Illustrated).
Prof. D. G. Elliot.
- Apr. 6.—“Cats and the Lands They Inhabit.” (Illustrated).
Prof. D. G. Elliot.
- Apr. 13.—“Through Death Valley.” (Illustrated).
Mr. Frederick I. Monsen, of the Geological Society of California.
- Apr. 20.—“Yucatan, the Land of Picar and Cuido.” (Illustrated).
Lecture First—“Along the Coast.”
Dr. Charles Frederick Millspaugh, Curator of Botany, Field Columbian Museum.

- Apr. 27.—“Yucatan, the Land of Picar and Cuido.” (Illustrated).
Lecture Second—“In the Interior.”
Dr. Charles Frederick Millspaugh.

The fourth course of lectures was planned for the Saturday afternoons of October and November, 1895, and began on October 5, the programme being as follows:

- Oct. 5.—“Cats and the Lands They Inhabit.”
(Repeated by request).
Prof. D. G. Elliot, Curator of Zoology, Field
Columbian Museum.
- Oct. 12.—“Living Pictures of Invertebrate Animals.”
Prof. A. H. Cole, University of Chicago.
- Oct. 19.—“Edible and Poisonous Mushrooms.”
Dr. Charles Frederick Millspaugh, Curator of Bot-
any, Field Columbian Museum.
- Oct. 26.—“A Chapter in the Early History of Chicago.”
Prof. O. C. Farrington, Ph. D., Curator of Geology,
Field Columbian Museum.
- Nov. 2.—“Structure and Natural History of Sharks.”
O. P. Hay, Ph. D., Assistant Curator of Ichthyology,
Field Columbian Museum.
- Nov. 9.—“On the Origin of Coal.”
H. W. Nichols, Curator of Economic Geology, Field
Columbian Museum.
- Nov. 16.—“The Ethnology of the Japanese.”
S. Choyo, Commissioner of Fine Arts, Imperial Jap-
anese Commission, World's Columbian Exposit-
ion.
- Nov. 23.—“Archeology and Episodes of Travel in Mexico.”
Prof. W. H. Holmes, Curator of Anthropology,
Field Columbian Museum.
- Nov. 30.—“Origin and Development of the Native Architecture of
Mexico.” Prof. W. H. Holmes.

The course was opened auspiciously by Prof. Elliot, the lecture hall being comfortably filled. This lecture course has been brought prominently before the universities of Chicago and vicinity, and the public school principals and teachers.

PUBLICATIONS.—The first edition of the Guide to the Museum was prepared during the early spring of 1894, and appeared in time for the opening day, June 1. Owing to the somewhat unsettled state of the collections at that time, there was much difficulty in preparing accurate plans, or even descriptions. This Guide contained 248 pages and provided a systematic, although condensed, presentation of all the material then in the Museum, indicating the location by

hall and case numbers. An appendix contained a list of the donors, contributors of loan collections, and collectors' names. The numerous changes and arrangement of material entailed much alteration of the proof, so that the edition was more expensive than usual. The edition was 3,000. The second edition of the Guide was published as soon as the first was exhausted, and the opportunity was taken advantage of to make the numerous changes required by re-installation. This edition was also of 3,000. A subsequent edition of 3,000 was issued in March of this year.

In October, 1894, a plan was outlined for a series of scientific and historical publications which should be the medium of presenting to the world the results of the research and investigation conducted under the auspices of the Museum. The publications are intended primarily to convey information upon the collections and expeditions of the Museum. There is no restriction, however, as to authorship or subject, provided the papers come within the scope of scientific or technical discussion. Each number as issued is treated as a separate monograph on the subject, so that the publication series includes what in other museums and scientific institutions appear under the title of transactions, memoirs, bulletins or catalogues. In order to provide for volume binding, a sectional plan has been adopted, and the following series have thus far been established: Historical, Geographical, Botanical, Zoological and Anthropological. Each series has its own volume numbers and consecutive pagination. This plan has the obvious advantage that the publications of each department are kept distinct, and when bound for library use the numbers are already classified according to subjects. Another great advantage is in enabling the Museum to enlarge its exchange list; instead of sending an entire set of publications in each case, only that series is sent to an institution or individual that is of especial interest thereto. The following publications have been issued:

Pub. 1.—Hist. Ser., Vol. 1, No. 1. An Historical and Descriptive Account of the Field Columbian Museum.

Pub. 2.—Hist. Ser., Vol. 1, No. 2. The Authentic Letters of Columbus.

William Eleroy Curtis, Honorary Curator of the Columbus Memorial.

Pub. 3.—Geol. Ser., Vol. 1, No. 1. Handbook and Catalogue of the Collection of Meteorites.

Oliver C. Farrington, Curator of Geology.

Pub. 4.—Bot. Ser., Vol. 1, No. 1. Flora of Yucatan.

Charles Frederick Millspaugh, Curator of Botany.

In Press and Preparation:—

Anthropol. Ser., Vol. 1, No. 1, Pt. 1. Studies Among the Ancient Cities of Mexico.

W. H. Holmes, Curator of Anthropology.

Anthropol. Ser., Vol. 1, No. 1, Pt. 2. Studies Among the Ancient Cities of Mexico.

W. H. Holmes, Curator of Anthropology.

Zool. Ser., Vol. 1, No. 1. Vertebral Column of *Amia*.

O. P. Hay, Assistant Curator of Ichthyology.

Bot. Ser., Vol. 1, No. 2. Flora of West Virginia.

Charles Frederick Millspaugh and L. W. Nuttall.

Four of the Museum publications have already been distributed. The scientific institutions to whom the publications have been sent were selected with special reference first, to their prominence and size; second, ability to send in exchange publications of scientific value; third, eagerness for the publications. The following statement shows the distribution in this country: Trustees, 15; Staff, 13; Corporate Members, 56; Annual Members, 723. General—Museums, 16; Scientific Societies, 62; Universities, Schools and Colleges, 67; Libraries, 122. Special—Anthropology, 21; Botany, 81; Geology, 114; History, 20; Industrial Arts, 21; Transportation, 16; Zoology, 16. (Note. Only Botanical, Geological and Historical series have been issued). Acknowledgments for these publications have been received from the ablest scientists and their words of commendation are a source of much gratification to the Museum. The quotation of a sentence or two from the letters of professors of the leading universities of the country will be pardoned. "I am very much gratified to see the strong movement the Museum is making in the line of scientific publications of a high order." "I wish to congratulate the Field Columbian Museum on issuing such a publication." "It is very neatly gotten out and will have considerable value aside from a mere catalogue of the collections. Your plates are particularly good."

"An Historical and Descriptive Account of the Field Columbian Museum," was sent by mail soon after issuance to the principal museums and scientific institutions of foreign countries. Since that time the Museum has availed itself of the privileges of the Bureau of International Exchanges of the Smithsonian Institution, by which means packages of literature can be forwarded to any foreign address without charge to the Museum, beyond that of delivery to the Smithsonian Institution at Washington. The foreign list of the Museum as far as made up comprises: General—Museums, 58; Libraries, 2; Academies, 11; Institutes, 4; Journals, 9; Schools, 9; Societies, 43. Special—Anthropology, 13; Botany, 40; Geology, 110; Industrial

Arts, 2; Transportation, 2; Zoology, 23. "A printed acknowledgment form is sent with each publication so that the Museum may be more certain to be apprised of the receipt of the publications. A request is added in each case that the publications of the recipient be sent in exchange. About 100 personal letters have been written requesting that back volumes be sent to complete sets of books, journals, etc., already on the shelves of the Library, or asking to be placed on the permanent mailing list for contemporaneous publications.

LIBRARY—The Library was organized in March, 1894. At that time the collections of books on hand were 1,390 titles from the Department of Ethnology, and 350 titles from the Department of Mines and Mining of the Exposition. The Kunz collection of books on Geology, Gems, Metallurgy, etc., and the Baltimore and Ohio collection on Transportation were added shortly afterward. There were 6,300 titles and 460 titles respectively in these two libraries. The Cory collection on Ornithology, consisting of 587 volumes was purchased and added to the Library on October 5, 1894. Through the generosity of Beloit College the splendid ornithological library of Edward E. Ayer has been conditionally presented to the Museum.

The total number of books accessioned and inventoried to October 1, 1894, was: Gifts, 2,864; loans, 869, purchases, 3,406. The accessions during the year October, 1894, to October, 1895, have been: Gifts, 421 bound volumes, and 465 pamphlets; loans, 123 bound volumes and 79 pamphlets; purchases, 1,170 bound volumes, 51 unbound volumes, and 16 pamphlets. All books published in foreign countries have been purchased through agents in London, Berlin and Leipzig. Most American books have been purchased through Chicago houses. \$3,500.00 was appropriated for the purchase of books for the Library, of which approximately \$1,000.00 was spent for general reference works, sets of scientific periodicals, etc., and about \$500.00 for books in each of the Departments of Anthropology, Botany, Geology, Zoology and Industrial Arts. The whole number of periodicals subscribed for is 94. A large number of the volumes received from the Department of Ethnology of the Exposition were unbound, and as a matter of preservation were sent to the bindery, together with the accumulating numbers of current scientific periodicals and old sets of unbound but valuable publications. The total number of volumes bound is 495. The large collection of pamphlets acquired in the "Kunz Collection" have been classified according to subjects, and fastened in cheap bindings, making them thus available for immediate and constant use.

A new system of shelf classification has been prepared on the

decimal system and the books have been labeled and marked both with subject and author-number. A shelf list card catalogue, containing about 9,000 cards, has been written and is used as a subject catalogue to the books. Some 5,000 cards have been written on the author-catalogue—about one-third of the work necessary to finish this catalogue. A card catalogue has also been commenced of books on science and technology in the different Chicago Libraries, with a reference to the Library where located; the idea being to provide the Curators with means of knowing what literature on a given scientific subject is to be found in the city, and also to avoid purchasing for the Museum Library expensive books already in other libraries of the city. This is a typewritten catalogue, and probably five or six thousand cards have already been prepared, but a large amount of work is, of course, still necessary to complete the catalogue. The Library has been quite generally and constantly used by the Curators. The number of books drawn for desk use by Curators during the year amounts to some 630 volumes. All periodicals are reserved for the use of Curators for three days. After this time they are exposed upon the tables of the reading-room for public use and remain there until the receipt of new numbers. Out of a total of 52 periodicals constantly exposed on the tables in this way only two numbers have been abstracted.

The ultimate plan of organization for the Library is upon the departmental system, according to which the more important reference works, cyclopedias, sets of periodicals, etc., will be reserved in the main library room, with smaller libraries in each department containing books bearing distinctly upon that department. Departmental libraries are already commenced in the departments of Geology and Ornithology.

RECORDS—The system of recording accessions and inventorying specimens has worked efficiently. A set of records for "Accession Catalogues" is kept in the office of the Recorder, one book for each Department, in which the accessions are entered as soon as received. Besides the Accession Record the Recorder keeps an "Announcement Record," which is an account of all material expected to arrive or to which the Museum is entitled; a "Transportation Record," in which is entered the facts pertaining to the transportation and receipt of material; a "Distribution Record," which gives the history of the material sent away from the Museum as a gift, loan or sale; a "Storage Record," accounting for the collections put away for future use. The archives contain all the correspondence pertaining to the accessions, including copies of the letters of the Director in each case. These files of papers are jacketed and numbered,

corresponding to the numbers of the catalogue. Correspondence relating to offers of material are preserved in the same manner and an alphabetical card index containing all names that enter into the correspondence is kept for each set of files.

The catalogue of specimens or "Department Inventory" is prepared by the Curators of departments. A set of books has been provided each department and the inventorying is being pushed as rapidly as time and circumstances permit. The cataloguing of specimens is, of course, an immense undertaking, but the progress thus far made is satisfactory. In this direction the following has been accomplished: Department of Anthropology, 15,000 cards; Department of Botany, 9,041 entries; Department of Geology, 8,000 entries, 4,000 cards; Department of History, 1,455 entries; Department of Industrial Arts, 3,261 entries; Division of Transportation 7,251 entries; Department of Zoology, 388 entries; Department of Ornithology, 1,900 entries; Library, 9,551 entries.

ACCESSIONS.—A detailed list of all of the accessions received for the Museum, either from donations, loans, deposits, for examination, Museum expeditions, and purchases, accompanies this report. As will be observed, the number of the accessions during the year has been quite large; statistics do not signify much where there is such a variation in the size and character of the accessions themselves. Your attention is therefore directed to a few of the larger and more notable acquisitions. The material received through Museum expeditions, especially that of Mr. Allison V. Armour, referred to elsewhere, has added a large amount of valuable scientific material to the collections of several departments. The donations and purchases in Egyptian archeology has enabled the Department of Anthropology to devote an entire hall to their exhibition, and helps to fill the great need of material illustrating the archeology of the Old World. Friends of the Museum have been liberal in their donations to the Department of Botany, and particular mention should be made of the generous contributions of Mrs. M. S. Snyder, who has sent extensive collections of both phanerogamic and cryptogamic plants. The Department of Geology, besides acquiring a large amount of new material by the recent visit of the Curator to the New England States, has been the recipient of numerous individual specimens and complete suites of ores and minerals. An equipment of microscopic and scientific apparatus for cutting sections of rock and mineral for microscopic examination will enable the Curator to carry on lines of investigation that would otherwise have been impossible. In the Department of History the parts of the group of the Columbus Quadriga were assembled in the Museum model room and

added to the statuary of the Columbian Rotunda. A number of the souvenirs of the Exposition have been courteously donated by interested friends. In the Department of Industrial Arts the principal additions have been to the textile room. Several prominent weavers of Belfast, Ireland, have contributed to the completeness of the processes illustrated in the textile collection. A number of new collections have added to the attractiveness of the new ceramic hall. The favrile glassware collection of the Tiffany Glass and Decorative Co., and the sets of early American china gathered in Pennsylvania, by Mr. E. A. Barber, for the Museum, should be particularly mentioned. Upon the application of the Museum to English potters, William Ault & Co., exhibitors at the Exposition, donated a set of modern English ware in large sizes. Notable progress has been made in extending the collections of the Department of Zoology. A large lot of skins of mammals, principally from tropical habitats, have been purchased in London: These were mounted by the Museum Taxidermist and will make effective groups when all are placed in position. A collection of shells, of rodents, and a number of minor vertebrate animals have also been purchased and are now being prepared, classified and labeled for display. A collection of Colorado birds, including 114 species and 136 specimens, has been purchased for the Department of Ornithology, and considerable field work has been undertaken to gather a typical series of birds from Chicago and vicinity.

EXPEDITIONS AND FIELD WORK—Although a great deal of work that might properly come under the head of expeditions has been done during the year, only three regular expeditions have been sent out by the Museum: One to Yucatan and the Islands and States of Mexico, the other to the West Indies, and the third to Alaska and Siberia.

In October, 1894, Mr. Allison V. Armour, of this city, invited Dr. Millspaugh, of the Department of Botany, and Prof. Holmes, of the Department of Anthropology, to accompany him on his yacht to Havana, Progreso, the islands on the east coast of Yucatan, Laguna di Terminos and Vera Cruz. On this expedition the Curator of Botany fitted out for making collections in both Zoology and Botany and for general photography. His work resulted in the acquisition of nearly eight hundred specimens in botany, which formed the types included in his "Flora of Yucatan," and considerable material for exchange to augment the small herbarium in his department. He also secured about four hundred specimens in Zoology, principally Conchology, and a number of excellent negatives relating to Geology, Botany, Ethnology and Travel. Having met with a serious accident

in one of the early days of the trip which hampered his work from the start and finally compelled his return to America before the Expedition had covered half its itinerary, the collections were far smaller than his hopes and inclinations had promised. Prof. Holmes fitted out for surveys and observations in Archeology. He secured at all points a large amount of valuable information that he is now embodying in a contribution to the Museum publications, illustrating his work from the wealth of sketches obtained by him on the trip. He secured altogether about one thousand specimens in Archeology from Yucatan, Chiapas, Oaxaca, Vera Cruz and the valley of Mexico. He also established desirable scientific connections and correspondents in all parts of the country visited, and, as with Dr. Millspaugh, secured a knowledge of the countries and the peoples visited that will be of great value in future work. The expedition as a whole was out for three months, and during that time covered a great deal of very interesting territory, much of it theretofore unvisited by scientists. Four lectures in the Museum course have resulted from the trip, two delivered by Dr. Millspaugh in the Spring series, and two by Prof. Holmes scheduled in the present course. All of the expenses of the expedition were borne by Mr. Armour, and to him the Institution and the Curators who accompanied him are indebted for the priceless results obtained.

The expedition to San Domingo was conducted by Mr. Geo. K. Cherrie, Assistant Curator in the Department of Ornithology. He departed in November, 1894, and returned in the latter part of May, 1895. His work was very thorough, very laborious, at times quite dangerous, and exceedingly successful. Most of his work was done in the interior and on the Caribbean slope and along the Nigua river, and the climatic danger to which the Curator was subjected is apparent from the fact that four of his guides were stricken with fever during his stay upon the Island. Mr. Cherrie obtained one thousand nine hundred and fifty-eight bird skins, sixteen mammals, eighty reptiles, and a number of specimens of fish and crustacea. Among the birds, two species proved new to science and a number of others are very interesting as representing rare and little known forms.

Capt. Miner W. Bruce, unattached, but a student in Ethnology and an explorer in the Northwest, of repute, was outfitted by the Museum for an expedition to Alaska and Siberia in June, 1894. Capt. Bruce failed to reach the point of his destination last season on account of an accident to the machinery of the vessel in which he sailed, but he will undertake the work again this season, using the material he had purchased for exchanges last year. Resulting thus far from the expedition has been the acquisition of valuable

ethnologic material from North Alaska, which will find its way to the Museum after its exhibition by Capt. Bruce at the Exposition at Atlanta, where it is at the date of this report.

President Ayer visited Egypt in January last, remaining about two months and obtaining by purchase a large amount of very valuable, unique and generally interesting Egyptian archeologic material. The collections arrived here safely in May and June, and having been attractively installed, add largely to the growing interest of the Egyptian suite of halls.

Prof. O. P. Hay, Assistant Curator of the Department of Zoology, has made a number of local trips collecting material in the Ichthyology, Herpetology and Conchology of Illinois. His collections have added to the Museum series about seven hundred specimens and one hundred and fifteen species. Specimens of the Illinois river shells were sent to the Smithsonian Institution for identification.

Mrs. M. S. Snyder, of Champaign, Ill., has been a very successful volunteer collector for the Museum in the Botany of Lower California. The lady carefully identified and splendidly mounted two hundred and three specimens and seven species of Algæ and one hundred and eighty-four specimens, and thirty-seven species of phanerogamic plants.

Prof. Farrington, the Curator of Geology, has accomplished considerable work in the field during the past year, his labors including a survey of the rocks of the Green Mountain Chain as exposed in Western Massachusetts and Northern Connecticut; of the Triassic rocks of the Connecticut Valley; a study of the emery deposits at Chester, Mass., and of the features of the local geology made visible by the excavations for the Chicago Drainage Canal. The work in Massachusetts and Connecticut was carried on in company with several other geologists under the guidance of Prof. Emerson, of Amherst College, and Prof. Hobbs, of the University of Wisconsin. A complete series of specimens illustrating the different formations of the Green Mountains and the rocks of the Connecticut Valley was obtained, and several specimens illustrating structural features. At Chester, Mass., a collection was made which illustrates fully the mode of occurrence of the emery, the rocks by which it is surrounded and the minerals which accompany it. This will form a part of the collection illustrating abrasives in the Department of Economic Geology. Study of the Drainage Canal has been carried on by means of visits of from one to four days in length, which offered opportunity for collecting specimens from the material that is being excavated and for taking photographs of the specimens as they were exposed. In this latter work the photographer of the Museum

has rendered valuable assistance. About sixty large photographs have been obtained and a number of fossils and specimens illustrating glacial and other phenomena.

SOUTH PARK COMMISSIONERS.—The appropriation by the Board of South Park Commissioners of \$15,000 per annum, to be applied to the maintenance of the Museum has been one of the gratifying and encouraging incidents of the year. It is a substantial evidence of the co-operative and helpful attitude of the Commissioners. The Director begs to acknowledge the very friendly and cordial attitude maintained at all times, and often under very trying circumstances, by the Superintendent of the South Park system, and his subordinates. They have aided the Museum effectively whenever the opportunity presented itself.

PHOTOGRAPHY.—The necessity arising for photographic work of a nature that the general photographer could not execute, such for example as illustrating publications and lectures, as well as preserving numerous conditions and objects that could in no other way be illustrated in the collections of the Museum, it was determined, in October, to establish a photographic section for work for all the departments of the institution. The Curator of the Department of Botany, who is skilled in the required processes, consented to take charge of the work. One of the rooms in the North Balcony makes an excellent dark chamber, and three cameras with the necessary lenses, one micro-camera and microscope, and the materials and chemicals needed were procured. The work soon became of greater volume than could be performed without assistance in the detail and routine, and an assistant was given Dr. Millspaugh from the staff of the Librarian. The results of the photographic work are as follows: Negatives made, 310; photo-prints, 115; lantern slides for lectures, 119; prints to illustrate publications, 42; photographs taken on expeditions, 131. Fully as much work as was performed in the last year is already on hand for immediate attention.

PRINTING.—A printing office was established in the latter part of March to execute the large amount of labels and general printing that is so necessary in the Museum. The intention is to replace all of the hand-written, and in many cases, illegible labels, with printed ones, and each department of the Museum has commenced upon this process of substitution. The amount of labor involved in such an undertaking is, of course, very large, and the establishment of an office was, therefore, not only a necessary but an

economic step. The total number of specimen titles printed for different departments has been as follows: Department of Anthropology, 651; Department of Geology, 1,508; Department of History, 140; Department of Industrial Arts, 1,187; Division of Steam Transportation, 262; Department of Zoology, 688, also much general work. The announcements for lecture courses and all of the blank forms used in the Museum are now issued from the Museum printing office.

EXPOSITION RECORDS.—By order of the Executive Committee, the room of that Committee was offered to and accepted by the World's Columbian Exposition for the purpose of storing and indexing the papers and records of the Exposition, preparing final reports, etc. Two fire-proof vaults were constructed by the Exposition under the rooms of the Executive Committee, and the adjoining room, No. 19, entrance to which is accomplished by means of a stairway leading from the Executive Committee room. In these vaults have been stored the records and correspondence and vouchers and papers generally of the Exposition, of which the Museum, it is understood, is to eventually become the custodian.

WAREHOUSE AND WORKSHOP.—The purchase of a warehouse and workshop, by order of the Executive Committee, which building is located on the corner of Fifty-sixth Street and Jefferson Avenue, has provided the institution with ample room for storage purposes and with rooms for carpentry, modeling and plaster work, and for taxidermy, three kinds of labor which could not be permitted within the Museum building as at present arranged. The small rooms, in what may be termed, the second galleries of the Courts, which it was thought might be utilized for these purposes, have by force of circumstances been pre-empted by the Curators of Botany, Zoology and Ornithology for laboratories, by the poisoning and disinfecting laboratory, by the guards and by the departments of printing and photography. These twelve rooms are already inadequate for the purposes to which they are devoted, and more room for working is already one of the great needs of the Museum.

LIGHT AND HEAT.—The most important permanent improvements during the past year have been the construction of steam heating and electric light plants, which systems are installed in a new boiler house at the west of the building, and have given the greatest satisfaction in operation. The steam plant has three 100 H. P. boilers, 12,000 feet of steam pipe and 70 radiators. The electric light plant has a capacity of forty 1,200-candle power arc lamps. The problem of heating the immense area within the Museum walls was one that required the most serious consideration. It was found

impossible to heat the four great courts with their height of seventy-eight feet, and it was an almost hopeless undertaking to warm the eighty spacious doorless halls. But the necessity for it compelled a means. The entrances to the halls leading from the courts and leading in and out of the long and narrow annex passages were fitted with large movable partitions filling the entire space, in which doors were constructed. By this means all the exhibition halls were enclosed, and being provided in each case with ample steam radiation, a minimum temperature of about 55 degrees was ordinarily maintained throughout the building. The boiler plant being located at the West Annex, it was feared that steam in sufficient quantity could not reach the East Annex. But the construction was so excellent and the return system so capable that all of the halls maintained about the same temperature except on very cold days. The courts are treated as streets, and visitors seem to readily adapt themselves to this condition of affairs. This arrangement practically closes the Department of Botany during the colder months, for, except on the few warm days of the winter season, it is impossible to view the collections there with any satisfaction. Covering the grille work around the sky-lights of the halls with asbestos, of which 15,000 square feet was used, aided very much in creating an agreeable temperature throughout the building.

The only occasion for lighting the building is for patrol purposes, as the Museum is never open to the public after dark. A judicious disposition of the forty arc lamps has amply illuminated the interior of the building and given six lamps for the patrol of the outside of the structure.

The question of light and heat naturally assumes an entirely different phase during the hot months, when the sun driving down upon the sky-lights creates an intensity of heat and a glare of light that at times become unbearable. To obviate this, sun curtains of unbleached muslin were hung under all of the ceiling lights throughout the building and under the great sky-lights in the main roof. This lessened the heat rays very noticeably, and softened the theretofore blinding sunlight.

INSTALLATION, RE-ARRANGEMENT AND PERMANENT IMPROVEMENTS.
—The largest amount of work under this head has been performed upon the roof. The eight gables on the East and West Annexes, have been covered with tin. Two domes, have been covered with tin; 3,000 square feet of corrugated iron have been put on the roof, while aprons to keep out the snow, and six new fire-proof scuttles have been constructed and covered. Wall strips, gutters, ridge strips and stair domes have been repaired and constructed to the extent of about 5,000

square feet. 30,000 feet of lumber were consumed in bracing the 40 sky-lights in the roof. 200 lights of glass have been placed in the roof during the year. The painters have gone over 163,856 square feet of surface during the year.

Department of Zoology.—Halls 19, 22, and 23 have been opened, fitted with new cases, and filled with material that had been crowded into the cases of other halls. An iron gallery for the use of the Curator of Ornithology and the storage of skins has been constructed in Hall 27. Halls 20, 25, and 26 have been re-arranged and cases and bases re-painted.

Department of Geology.—In Halls 60 and 61 new easels have been constructed and all the relief maps re-painted or re-touched. The West Rotunda statistical column has been rebuilt with iron framework. The Laboratory has been fitted up with working benches, storage cases, etc. Hall 79 has been re-arranged, cases re-painted, new glass put in upright cases, statue of Vulcan in iron and copper transferred from East Court and re-erected. Halls 62, 63, 64, 66, 67, 68, 70, 72, 76, 77, and 78 each have had attention in the nature of either repairs, re-painting, new sash, new bases, new cases entire, glass, etc.

Department of Anthropology.—In Halls 4, 5, 6, 7, 10, 11, 16, and 17, old cases have been re-backed and re-painted, and storage bases provided for flat cases. Halls 13 and 15 have been provided with storage bases with drawers, and new cases for the gold collection. In Hall 18 a new center case has been built and a re-arrangement of suspended installation carried out.

East Court.—Entire re-installation. The old engine models were presented to Armour Institute and other large objects, donated to the Museum, were removed by the donors. The Court, being added to the Department of Anthropology, was installed with new material, and material crowded from the adjoining halls. Alcoves 81, 85, 86, 89, 90, 91 and 92 have all been re-arranged, cases placed on new bases, and general repairs and improvements made. Halls 1, 2 and 3 have been re-arranged, with entirely new cases, most of the material displaced by the re-arrangement being either re-installed in the North Court Alcoves or sent to the warehouse.

North Court.—New installation in new cases containing collections of antique glass, the reproductions of the Naples bronzes and the Irish antiquities. Six partitions were erected in the North Court forming new alcoves. In this Court 19 new cases have been placed and all of the old cases re-painted.

West Court.—In the West Court few changes have been made except that a row of cases of shells has been installed on the south side of the Court.

Department of Botany.—Very little expense has been called for in the Department of Botany, the original installation seeming to have met all requirements.

Department of Industrial Arts.—Hall 33 has been opened in this Department and devoted to ceramics, while Halls 30 and 31, textiles, have been entirely re-installed. In these three halls, and in 32, thirty-four new cases have been fitted, and eighteen new bases placed. One hundred and seven frames for the tapestry collection have been provided and hung in Hall 30 and in Lecture Hall.

Division of Transportation.—Many models have been re-covered, re-bronzed, and re-painted, and many repairs and improvements made in Halls 46 to 53 inclusive. Boat Hall and the Burden-Bearer suite have been re-arranged, cases and bases re-painted, new glass put in, new railings constructed, and a general re-arrangement of all of the material contained therein.

Columbus Memorial.—Many alterations and re-arrangements have been made in Halls 8 and 9. The pictures have been re-hung and much of the material which was rather hurriedly placed in position has been cared for and put in a more satisfactory condition.

Lecture Hall—Has been re-fitted as an audience room, furnished with a movable platform, rear and side doors, roof and base ventilators, stereopticon stand, two hundred new chairs, etc.

The Library—Has been enclosed with doors, tables in the reading-room have been partitioned and re-painted, and pictures hung therein, and railing and new filing cases constructed in the office of the Librarian.

Memorial Rotunda.—The model of the Quadriga has been constructed and placed in position. All of the models have been re-painted, and a passage from east to west and north and south through the collections has been provided by means of iron railings.

The above is a very brief, imperfect synopsis of the general work of the Museum during the year, and while indicating, in a measure, the amount of work performed, gives necessarily a very inadequate idea of it.

FIRE AND POLICE PATROL.—While there has been a sharp reduction in the cost of the protection of the building and its contents, there has been a marked increase in the efficiency of the service. The Fire Department is provided with a chemical carriage of the capacity of fifty-five gallons; two hose jumpers with five hundred feet of hose on each machine; forty-two hand chemicals, stationed in different parts of the building; one hundred and forty-eight pails of water with automatic lids, etc., stationed inside the Building, and one

hundred stationed on the roof; and sixteen barrels of water located on the roof. There are also eight hydrants in the building connected with a twelve-inch main constructed by the Museum from Stony Island Avenue to the Museum building, thus giving Hyde Park pressure within the building at all times. All exposed wood work has been covered with fire-proof paint, and tests made satisfy the management that the fire risk has been greatly reduced thereby. An inspection for danger is made not only throughout the building, but on the roof and in the basement, every two hours from six o'clock in the morning until ten o'clock at night. During the year gallery and roof traps have been constructed in different parts of the building, with iron ladders leading to the roof, thus increasing the facility for reaching the remote parts. A Fire Alarm system is in operation in the building, with twelve stations for alarm boxes.

The Guard is divided into three reliefs, with a Sergeant in charge of each. The Museum is provided with the American Watchman's Time Detector system, and indicating boxes are rung by the guards regularly when on duty. In Higinbotham Hall the guard rings the indicator every fifteen minutes at night, as does the guard at the entrance to the building. This hall is provided with automatic electrical alarm devices. The exterior of the building is patrolled by a guard during the night.

LOST AND FOUND DEPARTMENT.—A lost and found department is conducted in connection with the guards, and a careful record kept of anything lost or found. A great many objects and articles, and in some cases sums of money, purses, etc., have been returned to their owners through its agency.

ROOF AND BASEMENT.—Its condition has been such that it has been found necessary to have special men constantly at work and on guard on the roof. The winter of 1894-95 and the spring and summer seasons of this year have passed without any material damage to the interior of the building, from the roof. Severe storms of snow and rain and wind have been withstood in a very satisfactory, not to say surprising, manner. The extent of this work is referred to in more detail elsewhere, but its importance will be realized when it is considered that there are seven acres of roof and five acres of sky-light to be cared for.

Herewith is submitted financial statements, analysis of attendance, lists of accessions, names of members, etc., etc.

F. J. V. SKIFF,
DIRECTOR.

FINANCIAL STATEMENT.

RECEIPTS AND DISBURSEMENTS

During Year ending September 30, 1895.

RECEIPTS.

Cash in Treasurer's hands, Oct. 1, 1894,	\$136,755.74	
Petty Cash on hand,	978.20	\$137,733.94
Membership Account:—		
Annual,	7,210.00	
Corporate,	210.00	7,420.00
Chicago City Railroad Co.,		2,250.00
W. G. Hibbard, special Egyptology,		1,000.00
Martin A. Ryerson, special department of Zoology,		600.00
Alex. H. Revell,		450.20
H. N. Higinbotham, special department of Industrial Arts		253.08
D. G. Hamilton, special Egyptology,		250.00
D. W. Burrows, special Egyptology,		50.00
B. F. Cummins Co.,		20.00
Divd. W. C. Exp. Stock:—		
H. P. Victor,	1.00	
Josephine M. Gillette, Executrix,	50.00	
J. K. George,	2.00	
E. A. Simon,	1.00	54.00
The McCormick Estate,		10,000.00
H. H. Porter,		5,000.00
Martin A. Ryerson,		5,000.00
Geo. M. Pullman,		100,000.00
Mary D. Sturges,		50,000.00
South Park Commissioners,		13,750.00
Proceeds of sale of old material, boilers, etc.,		1,341.94
Refund Uniforms (Guards and Janitors),		241.65
Admissions to Museum,		7,436.95
Check Rooms,		1,952.55
Guide Account, two editions net profit (1,700 of 3rd Edition on hand Sept. 30, 1895),		116.74
Interest Account:—		
On \$600,000 Temple Bonds	30,000.00	
On 143 Shares Ill. Trust and Savings Bank	1,501.50	
On 18 \$500 Calumet Club Bonds	156.09	
On Sundry Mortgages	520.56	
Amount allowed by Bank on Daily Balances	1,231.24	33,409.39
		<u>\$378,330.44</u>

DISBURSEMENTS.

Salaries,		\$ 34,418.91
Guard Service,		12,070.40
Janitor Service,		6,925.50
Fire Protection:—		
Milton Weston Paint Co.,	\$ 7,409.15	
Alarm System,	96.99	
Wages of Firemen,	2,870.00	10,376.14
Light Account:—		
People's Light & Power Co.,	1,704.02	
Hyde Park Gas Co.,	109.78	1,813.80
Building Account:—		
Boiler House,	1,713.19	
Ventilators,	85.62	
Alteration in Toilet Rooms,	228.78	2,027.59
Repairs Account:—		
Wages of Carpenters, Painters, Plasterers, and Roofers,	12,284.79	
Material used—Paints, Oils, Hardware, Glass and Lumber,	2,497.42	14,782.21
Steam & Electric Light Plants Account:—		
Installation of Steam Plant,	10,421.47	
Installation of Electric Light Plant,	3,177.37	
Operating Expenses—Wages,	3,320.75	
Fuel,	4,527.12	
Engineer's Supplies,	406.55	21,853.26
Furniture and Fixtures Account:—		
Cases, Stands, etc.,	10,795.65	
Printing Press, Type, etc.,	286.60	
Stereopticon, Photographic Outfit,	1,151.12	
Sundries,	1,187.59	13,420.96
The Library:—		
Books Purchased,	2,551.95	
Periodicals, etc.,	103.20	
Expense Account,	179.55	2,834.70
Dept. of Anthropology:—		
Collections and Articles purchased,	9,556.17	
Installation Expenses, Etc.,	1,042.32	10,598.49
Dept. of Botany:—		
Collections and Articles purchased	25.00	
Installation Expenses, Etc.,	140.01	165.01
Dept. of Columbus Memorial:—		
Installation Expenses,		11.11
Dept. of Exposition Memorial:—		
Modelling Quadriga, Wages and Material,		321.58
<i>Carried forward,</i>		\$131,619.66

<i>Brought forward,</i>		\$131,619.66
Dept. of Industrial Arts:—		
Collections and Articles purchased,	\$1,615.82	
Installation Expenses,	456.61	2,072.43
Dept. of Geology:—		
Collections and Articles purchased,	1,288.35	
Installation Expenses,	350.61	1,638.96
Dept. of Ornithology:—		
Collections and Articles purchased,	333.00	
Installation Expenses,	29.98	362.98
Dept. of Zoology:—		
Collections and Articles purchased,	3,940.56	
Installation Expenses,	184.13	4,124.69
Div. of Railway:—		
Paid B. & O. R. R., Acc't Contract \$25,000,	8,452.78	
(Total amount paid on above contract \$17,452.78)		
Installation Expenses,	68.57	8,521.35
General Expense Account:—		
Freight, Expressage and Teaming,	2,687.91	
Stationery,	471.44	
Expeditions to Yucatan and West Indies,	1,095.92	
Cost of Publications Nos. 1 and 2,	782.14	
Telephone Service,	171.83	
Rent of Warehouse,	176.00	
Mailing, Printing, etc., Annual Membership Notices,	1,071.75	
Lecture Course Expenses,	214.32	
Doctor, Hospital and Druggist Bills,	329.35	
Incidentals,	1,575.24	8,569.90
		\$156,909.97
Mortgages, etc., purchased,	194,200.00	
Real Estate (Warehouse Property),	10,186.00	
In Treasurer's hands, Sept. 30, 1895,	16,294.52	
Petty Cash on hand, Sept. 30, 1895,	739.95	221,420.47
		\$378,330.44

TOTAL INVESTMENTS, OCTOBER 1, 1895.

\$600,000 Temple Bonds @ 5%	\$600,000.00
143 Shares Illinois Trust & Savings Bank,	50,000.00
18 \$500 Calumet Bldg., Association Bonds @ 6%	9,000.00
Sundry Bonds and Mortgages, approx. 5% per annum,	135,200.00
	\$794,200.00

List of Cash Contributors to the FIELD COLUMBIAN MUSEUM

From its inception to October 1, 1895.

NAME	AMOUNT
Marshall Field,	\$1,000,000.00
H. N. Higinbotham,	100,000.00
Geo. M. Pullman,	100,000.00
Mary D. Sturges,	50,000.00
Frances E. Ogden,	2,000.00
Tiffany & Co.,	10,000.00
D. K. Pearsons,	5,000.00
The McCormick Estate,	10,000.00
H. H. Porter,	5,000.00
Martin A. Ryerson,	5,000.00
P. D. Armour,	10,000.00
J. W. Doane,	5,000.00
Norman B. Ream,	5,000.00
A. A. Sprague,	5,000.00
Edson Keith,	5,000.00
Lambert Tree,	5,000.00
William A. Fuller,	5,000.00
George E. Adams,	5,000.00
R. T. Crane,	5,000.00
A. C. Bartlett,	5,000.00
C. L. Hutchinson,	5,000.00
Martin A. Ryerson, special, Dept. of Zoology,	600.00
Geo. E. Adams,	300.00
W. G. Hibbard, account Egyptology,	2,706.25
W. Vernon Booth, " "	500.00
D. G. Hamilton, " "	250.00
D. W. Burrows, " "	50.00
F. S. Winston, " "	83.33
Jas. W. Scott, " "	83.34
Lyman J. Gage, " "	83.33
Geo. F. Kuhn, Account Library,	65.00
W. T. Baker, Trustee,	50.00
Alex. H. Revell,	450.20
Dept. of Mines & Mining, World's Columbian Exposition,	1,912.60
B. F. Cummins Co.,	20.00
World's Fair Banquet Fund,	25.40
Divd. World's Fair Stock. See list of donors elsewhere	132,358.00
	\$1,486,537.45

ATTENDANCE AND RECEIPTS FOR YEAR ENDING SEPT. 30, 1895.

Total Attendance,		328,321
Paid Attendance:—		
Adults,	29,164	
Children,	1,458	30,622
Free Admissions on pay days:—		
School Children,	7,035	
Students,	1,777	
Teachers,	306	
Members—Corporate,	60	
Annual,	726	
Press,	10	
Officer's Family,	77	9,989
Admissions on Free Days:—		
Saturdays,	95,839	
Sundays,	191,871	287,710

Highest Attendance on any day (Oct. 14, 1894)	10,952
Lowest Attendance “ “ “ (Feb. 7, 1895)	5
Highest paid Attendance, (July 4, 1895)	575
Average Daily Admissions, (365 Days)	900
Average paid Admissions, (261 Days)	117

RECEIPTS.

Guides sold, 2,849 @ 25 cents,	\$ 712.25
Articles Checked, 39,051 @ 5 cents,	1,952.55
Admissions,	7,436.95
Total,	\$10,101.75

*ACCESSIONS, 1893-94.

FROM FOUNDATION OF MUSEUM TO OCTOBER 1ST, 1894.

DEPARTMENT OF ANTHROPOLOGY:—

Donations	90
Loans	7
Exchanges	2
For Examination	1
Purchases	51

Total Accessions . . 151

DEPARTMENT OF BOTANY:—

Donations	45
Loans	6
Purchases	5

Total Accessions . . 56

DEPARTMENT OF GEOLOGY:—

Donations	146
Loans and Deposits	6
Exchanges	1
For Examination	1
Purchases	23

Total Accessions . . 177

DEPARTMENT OF HISTORY:—

Donations	50
Loans	10

Total Accessions . . 60

DEPARTMENT OF INDUSTRIAL ARTS:—

Donations	183
Loans	8
Purchases	16

Total Accessions . . 207

DIVISION OF TRANSPORTATION:—

Donations	41
Loans	13
Purchases	2

Total Accessions . . 56

DEPARTMENT OF ZOOLOGY:—

Donations	8
Loans	1
Exchanges	1
Purchases	8

Total Accessions . . 18

LIBRARY.—

Donations	2864
Loans	869
Purchases	3406

Total Vols. and Pamphs., . . 7139

*The number of items will be shown by the completed Department Inventories. An accession is material received at one time from one source, and may include a single specimen or an entire collection.

ACCESSIONS, 1894-95.

FROM OCTOBER 1, 1894, TO OCTOBER 1, 1895.

DONATIONS.

DEPARTMENT OF ANTHROPOLOGY.

- W. G. FORREST, Chicago.
2 feather robes—Seris Indians, Gulf of California.
- JAMES W. SCOTT, Chicago.
Amphora—Ancient Troy.
- W. B. WALTON, Big Foot Prairie, Ill.
Large wooden bowl—South Sea Islands.
- JOHN B. CATON, Chicago.
Chinese or Tartar gun.
- EDWARD E. AYER, Chicago,
1 Buffalo skin, 1 lot of spear heads, 1 lot of stone implements, Indian basket.
Indian baskets—Pacific Coast.
- DR. JOHN W. O'NEILL, Chicago.
Archeological specimens—Yucatan.
- ALLISON V. ARMOUR, Chicago.
Portion of hide and hair of a Mammoth—Siberia.
- WILLIAM G. HIBBARD, Chicago.
Collection of ancient iron and brass utensils—Egypt.
- LAWRENCE C. MOORE, Chicago.
Sculptured stone head—Florida.
- JOSEPH CLARK, Congo.
Arrows—Upper Congo, Africa.
- EDMOND JOHNSON, Dublin, Ireland.
Model of Dalway harp—Ireland.
- EUGENE ARNSTEIN, Chicago.
Antique bedstead—Indiana.
- W. VERNON BOOTH, Chicago.
Collection of ancient gold ornaments—Egypt.
- WARREN K. MOOREHEAD, Columbus, O.
Plan of the Hopewell Group of Mounds, Ross Co., Ohio.
Maps of Fort Ancient, Ross Co., Ohio.
- WESSELL, NICKEL & GROSS, New York.
Evolution of the modern piano movement.
- A. BIERSTADT, New York.
Indian skull—Island of San Salvador.

- F. MUNSON, Windsor Park, Ill.
Relics from Egypt, Indian stone ax and other antiquities.
- DR. THEO. KODIS, Chicago.
Small stone battle-ax—Lithuania, Poland.
- W. B. BULL, Quincy, Ill.
Bronze stop-cock from Pompeii.
- NICARAGUA GOVERNMENT, through A. D. Strauss, New York.
Collection of earthenware and articles of stone from ancient graves,
Nicaragua, C. A.
- H. K. COALE, Chicago.
Antique piano, made in 1820.
- WATSON F. BLAIR, Chicago.
21 articles of bronze, 1 book—Egypt.
- MRS. E. E. AYER.
6 Ushabtiu figures.
- JOE L. DAY, Chicago.
1 rain-coat, 1 hat—Japan.
- DEPARTMENT OF ETHNOLOGY, World's Columbian Exposition, through
W. K. Moorehead.
Archeological collection—Ohio.

DEPARTMENT OF BOTANY.

- C. F. MILLSPAUGH, Chicago.
Herbarium specimens.
- MRS. H. B. MINIER, Harvard, Ill.
One frame of lichens.
- PROF. GEO. E. DAVENPORT, Medford, Mass.
5 new species of ferns.
- MRS. M. S. SNYDER, Champaign, Ill.
203 specimens of *Algæ*—La Jolla, Cal.
Collection of *Algæ*—La Jolla, Cal.
184 species of phanerogamic plants—La Jolla, Cal.
7 species *Algæ*—La Jolla, Cal.
37 species flowering plants—La Jolla, Cal.
- JAS. E. KETCHAM, Paw Paw, Ill.
Limb of wild cherry showing "natural grafting."
- L. W. NUTTALL, Nuttallburg, W. Va.
5 species parasitic fungi.
- MARTIN A. RYERSON, Chicago.
350 species plants.

DEPARTMENT OF GEOLOGY.

- MRS. WM. BLODGETT, Sharon Springs, Kans.
Group of rolled pebbles of rock crystal.
- N. DIAZ, City of Mexico, Mexico.
Catalog of meteorites.
- W. H. JACKSON, Denver, Col.
Large photograph of Shoshone Falls, Idaho.
- J. H. KNIGHT, Chicago.
Quartz Crystal.
- GEO. W. STOSE, Washington, D. C.
Nodules of *Marcasite*.
- W. C. BREMNER, Chicago.
Specimen of *Chalcedony*.
- F. A. HEALY, Chicago.
8 specimens of *Brachiopods*.
- F. J. H. MERRILL, New York State Museum, Albany, N. Y.
Geological map of the state of New York.

- E. R. SNABLE, Summit, Ill.
Piece of limestone with bitumen.
- ILLINOIS STEEL CO., South Chicago, Ill.
20 specimens of iron ores, 8 specimens fuels and slags.
- B. A. ECKHART, Sanitary District of Chicago.
Map showing entire Drainage Canal.
- W. B. DAVENPORT, Chicago.
7 specimens illustrating the occurrence of gold—Cal.
- MATTHIESSEN & HEGELER ZINC CO., La Salle, Ills.
Specimens illustrating the extraction of zinc.
- FRANK MANSON, Chicago.
Specimens of ores and minerals.
- GEO. W. GOETZ, Milwaukee, Wis.
Piece of iron forged and rolled from iron 2000 years old.
- JOHN BROWN & CO., Sheffield, Eng.
Serve's ribbed steel tubes.
- J. W. LAMB, Chicago.
Marcasite specimens.
- ALBERT S. GAGE, Chicago.
Collection of ores.
- B. S. MILLSPAUGH, Windsor Park, Ills.
Onyx marble.
- THE CARBORUNDUM CO., Monongahela, Penn.
Carborundum (Carbide of Silicon) crude and manufactured.
- T. J. GRIER, Lead City, South Dakota.
Free gold in quartz.
- W. L. MILLIKEN, Chicago.
Egyptian Jasper or *Argillyte*.
- PICHER LEAD CO., St. Louis, Mo.
Specimens illustrating Lewis-Bartlett lead process.
- PETER KOFOOD, Chicago.
Quartz containing porphyritic crystals of *Orthoclase*.
- MAJ. GEO. D. MILES, Old Fort, N. C.
5 specimens of Garnet Sands, 1 specimen of *Monazite*.
- W. A. GRIFFIN, Griffin, Ill.
1 specimen of *Chalcedony* in coral.
- DR. ROBERT PARHAM, Chicago.
1 slab of stalagmite marble (polished.)
- ILLINOIS TERRA COTTA & LUMBER CO., Chicago.
1 specimen of porous partition tile.
- W. W. HILL, South Dakota.
1 specimen of clay.
- HENRY W. NICHOLS, Field Columbian Museum.
Zinc ores and accessory minerals, zinc minerals.
6 fossils.
1 specimen of slate.
- MRS. F. W. PARKER, Chicago.
55 samples of sand of different colors—The Dells of Wisconsin.
- PRINCE MANUFACTURING CO., New York.
9 specimens of crude and finished mineral paints.
- F. M. SMITH, San Francisco, Cal.
20 specimens illustrating mining and refining of borax—California.
- EDWARD E. AYER, Chicago.
Specimens of gold ore.

DEPARTMENT OF HISTORY.

- LIEUT. E. H. REED, Chicago.
Old release deed. 1760.

- A. BIERSTADT, New York.
Sand from the Island of San Salvador.
- F. MUNSON, Windsor Park, Ill.
Relics of Charter Oak, Plymouth Rock, and the War of '61.
Small upright picture frame made of wood from Charter Oak and Independence Hall.
- C. A. JORDAN, Chicago.
First U. S. flag raised on Exposition grounds.
- WORLD'S COLUMBIAN EXPOSITION.
"Columbus Quadriga," group of statuary.
- A. W. McNEIL, Chicago.
Inkstand souvenir of the Exposition.
- GUATEMALA COMMISSION, World's Columbian Exposition.
Stationery and literature of the Commission.
- DEPT. OF MINES AND MINING, World's Columbian Exposition.
Stationery of the Department.
- COLOMBIA COMMISSION, World's Columbian Exposition.
Invitation issued by the Commission.
- H. B. SHEA, Field Columbian Museum.
Printed instructions issued by the World's Columbian Exposition.
- CONSULAT DE FRANCE, Chicago.
Official Exposition stationery of the French Commission.
- FRANK DUNLAP, Field Columbian Museum.
Exposition ticket No. 217,539 for Cold Storage Fire Fund.
- S. WEDELES, Chicago.
Exposition lapel button.
- WILLIAM E. CURTIS, Washington, D. C.
Exposition stationery and President's proclamation.
Tracing of Watling Island.
- JEROME A. SMITH, Chicago.
4 Exposition medals.
- BRAZILIAN COMMISSION, World's Columbian Exposition.
Official Exposition stationery used by Commission.
- WORLD'S COLUMBIAN EXPOSITION, Board of Directors.
Gavel (chair arm) relic of first Exposition Stockholders' Meeting.
- SIMON STRAUSS, Belleville, Ill.
Miniature Columbus Caravel, whittled of wood from Exposition buildings.
- MEYER BALLIN.
Photographs and autograph letters of Hans Christian Andersen.

DEPARTMENT OF INDUSTRIAL ARTS.

- JOHN S. BROWN & SON, Belfast, Ireland.
Articles pertaining to the linen industry.
- WM. LIDDELL & CO., Belfast, Ireland.
Miniature Jacquard machine.
- IRISH INDUSTRIES ASSOCIATION, Chicago.
Center piece embroidered.
- YORK STREET FLAX SPINNING CO., Ltd., Belfast, Ireland.
Photographs of flax works and process of linen working.
- SANFORD MILLS, Sanford, Me.
The process of mohair from the fleece to finished fabric.
- WILLIAM AULT, Swadlincote, England.
Specimens of ceramics.
- JOHN ERB, Columbus, Wis.
One token "Burbank & Shaw." Chicago. 1845.
- MARTIN A. RYERSON, Chicago.
8 ancient fabrics, 1 tassel.

- MRS. J. M. HORTON, Chicago.
Korean bed—Seoul, Korea.
- J. N. RICHARDSON, SONS & OWDEN, Belfast, Ireland.
Photographs of early linen manufacture—Ireland.
- F. MUNSON, Windsor Park, Ill.
Sets of ancient Chinese coins.
- K. NAKAMURA, Tokyo, Japan.
Embroideries, bronzes and ceramics.
- SOSUKE NAMIKAWA, Tokyo, Japan.
Cloisonne panel—Japan.
- MARSHALL FIELD & CO., Chicago.
Ramie fiber—Shanghai, China.
- GENERAL ELECTRIC CO., Chicago.
2 cases bamboo fiber for electric light filaments.
1 case miniature incandescent light bulbs.
- S. I. TAKASHIMA, Kyoto, Japan.
1 embroidered picture of bird and grasses—Japan.
- MR. DOMEI, Tokyo, Japan.
1 old Japanese embroidered silk table cover.
- SOZAYEMON NISHIMURA, Tokyo, Japan.
1 velvet picture of Fujiyama.
1 embroidered chrysanthemum design—Japan.
- J. AUDO, Nagoya, Japan.
1 cloisonne plaque in lacquer.
- HENRY ROEPKE, Chicago.
1 lady's work box.

DIVISION OF TRANSPORTATION.

- CHAS. CHATEAU, St. Louis, Mo.
Shipping bill dated March 4, 1826.
- LAWRENCE HARGRAVE, Stanwell Park, New South Wales.
Flying machine (model.)
- WM. G. HIBBARD, Chicago.
Cariole—Norway.
- T. J. OLSEN, Chicago.
Model of land and water velocipede.

DEPARTMENT OF ZOOLOGY.

- A. E. J. SVEGE, Field Columbian Museum.
1 Monkey—South America.
- H. P. FRIDENBERG, Jacksonville, Fla.
Chameleon.
- CHAS. B. CORY, Field Columbian Museum.
47 jars of reptiles, insects, etc., in alcohol.
- WILL A. CONNELLY, Danville, Ill.
Hog's foot, showing abnormal number of toes.
- HENRY L. SEIDLER, Columbus, O.
Shark's jaws and small, dried Hammer-headed shark.
- ED. LEWIS, Chicago.
2 masses of the worm-like tubes of *Vermetus*—West Coast, Florida.
- J. A. HUME, Field Columbian Museum.
1 Dog-fish, *Amia calva*—Lake Michigan, Jackson Park.
3 fishes—Lake Michigan, Jackson Park.
2 fishes, Bull-head and Goggle-eye—Lake Michigan, Jackson Park.
- W. S. ROYCE, Hawthorne, Ill.
1 Butterfly—Hawthorne.
- GEORGE MANIERRE, Chicago.
2 fishes, *Notropis megalops*.
- MRS. KAUFMANN, Chicago.
1 Opossum—Central America.

- MRS. DR. J. A. TOMHAGEN, Chicago.
1 Opossum—Central America.
- PROF. J. B. STEERE, Ann Arbor, Mich.
Negatives illustrating Dr. Steere's monograph on *Bos Mindorensis*.
- DON ANASTOSIO ALFARO, Director National Museum, San Jose, Costa Rica.
2 skins and skulls of *Geomys cherriei*.
- A. THOMPSON, Field Columbian Museum.
1 fish—Lake Michigan, Jackson Park.
- C. E. AKELEY, Field Columbian Museum.
2 skulls of *Tragulus*—Borneo.

DEPARTMENT OF ORNITHOLOGY.

- A. E. J. SVEGE, Field Columbian Museum.
1 Carolina Rail.
- EDWARD E. AYER, Chicago.
5 bird skins.
- HARRY VINCENT, Commissioner from Trinidad, World's Columbian Exp's'n.
Humming birds mounted in glass case—Island of Trinidad.
- J. C. CUMMINS, Chicago.
2 mounted Prairie Chickens.
- CHAS B. CORY, Field Columbian Museum.
30 bird skins—Costa Rica.
2 hawks, *Regierhinus Wilsoni*.
1 type, *Chordiales Chapmani*.
- A. W. CARTER, Chicago.
Robin's egg—Wisconsin.
- MRS. REYNOLDS, Chicago.
Mounted Peacock.
- GEO. K. CHERRIE, Field Columbian Museum.
56 bird skins—from Iowa, chiefly.
- CAPT. ALBERT L. OTTO, Field Columbian Museum.
2 Virginia Rails—Lake Michigan, Jackson Park.

LIBRARY.

FOR GRAPHIC ART AND PRINTING COLLECTION.

- BARNHARDT BROTHERS & SPINDLER, Chicago.
Old Ramage printing press—transferred from Department "I".
- GERMAN GOVERNMENT PRINTING OFFICE, Berlin.
Frames of Typographic specimens — transferred from Department "I".
- ART INSTITUTE OF JAPAN, Tokyo, Japan.
55 numbers of the Kokka, an art journal in Japanese.
- MERGENTHALER LINOTYPE CO., Tribune Building, New York.
1 photo Linotype machine.
12 matrices, 5 slugs of type.
- R. HOE & CO., 504 Grand Street, New York.
21 pictures of printing presses, samples of color work, etc.
- CHICAGO PHOTO-GRAVURE CO.
Collection illustrating the Collotype printing processes.
- U. S. NATIONAL MUSEUM, Washington, D. C.
Photo of Benjamin Franklin's printing press.
- HAMILTON MANUFACTURING CO., Two Rivers, Wis.
Collection of wood type, framed.

BOOKS, PAMPHLETS AND SERIALS.

- ALABAMA GEOLOGICAL SURVEY.
Report of the geology of the Coastal Plain of Alabama. 1895.
Geological map of Alabama, with explanatory chart. 1894.
Report upon the Coosa coal fields. 1894.

AMERICAN INSTITUTE OF MINING ENGINEERS.

Transactions for 1895.

AMERICAN MUSEUM OF NATURAL HISTORY.

Bulletin, 1894.

Annual report of the president for 1894.

Annual report, act of incorporation, etc., 1893.

AMERICAN NUMISMATIC AND ARCHEOLOGICAL SOCIETY.

Proceedings and papers of thirty-fifth annual meeting, 1893.

AMERICAN PHILOSOPHICAL SOCIETY.

Rules and regulations of the Magellanic premium.

Supplementary report of the committee to consider an international language. 1888.

List of deficiencies in the library. 1889.

Catalogue of the library. 1863-84.

Proceedings at the dinner commemorative of the Centennial Anniversary. 1880.

Report of the committee to assist the commission on amended orthography. 1889.

Subject register of papers published in the transactions and proceedings.

List of surviving members, prepared by H. Phillips. 1895.

Laws, regulations, charter, etc., prepared by H. Phillips. 1894.

List of the members. 1890.

Proceedings. 1893-94.

AMERICAN ACADEMY OF ARTS AND SCIENCES.

Proceedings, new series, vol. xxi. 1894.

AUSTRALIAN MUSEUM.

Catalogue of the echinodermata, part 1. 1891.

Catalogue of the Australian birds, parts 1-4. 1876-94.

Catalogue of marine shells of Australia and Tasmania. 1892-93.

Catalogue of the Australian hydroid zoophytes. 1884.

Catalogue of the Australian stalk and sessile-eyed crustacea. 1882.

Catalogue of a collection of fossils. 1883.

Descriptive catalogue of the nests and eggs of birds found breeding in Australia. 1889.

History and description of the skeleton of a new sperm whale. 1890.

Notes for collectors. 1887.

Memoirs no. 2; Lord Howe Island. 1889.

Catalogue of sponges. 1888.

Catalogue of the general collection of minerals. 1885.

Guide to the contents, with list of old documents and relics. 1890.

Records, vol. 1, and nos. 1-5 of vol. 2. 1891-92.

Catalogue of the fishes, part 1. 1888.

Catalogue of Australian mammals, by J. D. Ogilby. 1892.

Report of trustees, for 1894.

ARMOUR, ALLISON V.

Atlas pintoresco historico de los Estados Unid. Mexicanos, by Ontario G. Cubas. 1885.

AYER, EDWARD E.

The development of the American rail and track, by J. E. Watkins. 1891.

The relics of Columbus, by W. E. Curtis. 1893.

Third report of the Entomological Commission, U. S. Department of Agriculture.

BADT, E. B. (the author), Chicago.

Bellhangers' handbook. 1893.

Electric transmission handbook. 1891.

Incandescent wiring handbook. 1895.

New dynamo tenders' handbook. 1894.

BALTIMORE HOME FOR INCURABLES, Baltimore, Md.

Eleventh annual report. 1895.

BARROWS, REV. DR. J. H. (the author), Chicago.

Results of the Parliament of Religions. 1894.

- BEEBE, W. S. (the author), Thompson, Conn.
 American inscriptions. 1894.
 Great dial, Tiahuanacu, Bolivia. 1894.
 General views, Peru, Bolivia. 1894.
 Numerical evidence in favor of the wide distribution of the theory of
 primes. 1894.
 The mithraic table found at Davenport. 1894.
 Series exhibiting the influence of the Tiahuanacu dial. 1894.
- BERLIN KÖNIGLICHE MUSEEN.
 Führer durch das museum für Völkerkunde. 1895.
- BISBEE, MARVIN D. (the author), Concord, N. H.
 Bibliography of Dartmouth College and Hanover. 1894.
- BOARD OF LADY MANAGERS, World's Columbian Exposition.
 Addresses and reports of Mrs. Potter Palmer. 1894.
- BOAZ, FRANZ.
 On the *pithecanthropus erectus*, Dubois, by O. C. Marsh. 1895.
- BOSTON MUSEUM OF FINE ARTS.
 Nineteenth annual report of the trustees. 1891.
- BOWES, JAMES L. (the author), London.
 Notes on shippo, a sequel to Japanese enamels, 1895.
- BRAZILIAN COMMISSION.
 The Graphic, vol. 9, No. 18, Brazil at the Columbian Exposition. 1893.
- BRIDGEPORT PUBLIC LIBRARY.
 Finding list. 1891-93.
- BROOKLYN LIBRARY.
 Thirty-seventh annual report of the board of directors. 1895.
- BÜCKNER, H. (the author), Strassburg, Germany.
 Neue mineralfunde von Westeregeln.
- BURCHARD, E. L., Field Columbian Museum.
 Report on the geology of N. Eastern Alabama, by C. W. Hayes. 1891.
 Phosphates and marls of Alabama, by E. A. Smith. 1892.
 Preliminary report on part of the lower gold belt of Alabama, by W. B.
 Phillips. 1891.
 Catalogue of a stratigraphical collection of Canadian rocks for the
 World's Columbian Exposition, by W. F. Ferrier.
 Fourth annual report of the Geological Survey of Texas, 1892, with
 accompanying papers.
 Report on the geological structure of Murphrees Valley, Alabama, by A.
 Gibson.
 The coal trade, by F. E. Saward.
 Memoria general y especial sobre las minas en la republica Argentina,
 by H. D. Hoskold.
 Etude sur les mines d'or et d'argent de la Colombie, by Henry Jalhay.
 The New River—Cripple Creek mineral region of Virginia, by A. S.
 McCreath and E. V. d'Invilliers.
 Mines and minerals of the province of Quebec, by J. Obalsky.
 Hand-book of regulations and general information, by Royal Commis-
 sion, World's Columbian Exposition.
 Official directory of the World's Columbian Exposition.
 Catalogue of the Brazilian Section, World's Columbian Exposition. 1893.
 Datos mercantiles, Estados Unidos Mexicanos, by Ricardo de Maria y
 Campos. 1889.
 The year-book of Australia for 1892, by Edw. Greville.
 Documents officielles reglement de comités, World's Columbian Expo-
 sition, Minister du Commerce et de l'Industrie. 1892.
 Mexico ante los congresos internacionales penitenciaros, by A. A. de
 Medina y Ormaechea.
 Official congressional directory, by W. H. Michael and F. M. Cox. 1893.
 Annual report of the director of the mint, U. S. Treasury Department.
 95 pamphlets on geology, mineralogy, metallurgy, etc.
- CALIFORNIA AGRICULTURAL EXPERIMENT STATION.
 Report of work 1892-3 and part of 1894.

CALIFORNIA MIDWINTER INTERNATIONAL EXPOSITION MEMORIAL MUSEUM.

Guide to the halls and galleries. 1895.

CALIFORNIA STATE MINING BUREAU.

Bulletin No. 1, 3, 4 and 5. 1888-94.

12th report of the State Mineralogist. 1894.

Bulletin No. 5. The Cyanide process by A. Scheidl. 1894.

CALIFORNIA WORLD'S FAIR COMMISSION.

Final report including a description of all exhibits of California. 1894.

CAMBRIDGE UNIVERSITY.

29th annual report of the museums and lecture rooms syndicate. 1895.

CANADA GEOLOGICAL SURVEY.

Maps to illustrate reports 1871-79.

Annual reports. 1885-88, and 1890-93, 7 vols.

Report of progress. 1876-84, 6 vols.

CAYUGA COUNTY HISTORICAL SOCIETY.

Collections, no. 11. 1895.

CHANUTE, O., Chicago.

Progress in flying machines. 1894.

CHERRIE, G. K., Field Columbian Museum.

On the structure and distribution of coral reefs, by Darwin.

The Batrachia of North America. 1889.

The public writings of G. Newbold Lawrence, by Foster.

CHICAGO ACADEMY OF SCIENCE.

A naturalist in Mexico, by F. C. Baker. 1895.

Bulletins 1-10. 1883-86.

CHICAGO ART INSTITUTE.

Circular of instruction. 1894-95.

CHICAGO UNIVERSITY.

Programme. 1895-6.

Quarterly announcements. Nov. 1895.

Quarterly calendar. vol. 3, nos. 3-5.

Annual register. 1892-95.

Circulars of information, 1895.

CINCINNATI MUSEUM ASSOCIATION.

1st-9th annual reports. 1882-89.

14th annual report. 1895.

Catalogue of spring exhibition. 1885.

CINCINNATI PUBLIC LIBRARY.

Supplement to the prose fiction in the library. 1884-94.

Bulletin of books added in the various departments. 1894.

CINCINNATI SOCIETY OF NATURAL HISTORY.

Journal. 1894.

CINCINNATI TECHNICAL SCHOOL.

8th annual catalogue. 1894-95.

CLARK, JOHN M., Chicago.

Report of the collector of customs at Chicago, relating to the World's Columbian Exposition. 1894.

CLARKE, ROBERT & CO., Cincinnati, O.

Catalogue of a valuable collection of books and pamphlets relating to America. 1895.

COLBY UNIVERSITY.

75th annual catalogue of officers and students. 1895.

COLORADO AGRICULTURAL EXPERIMENT STATION.

Bulletin No. 31. 1895.

COLORADO STATE SCHOOL OF MINES.

Catalogue. 1894-95.

COLORADO SCIENTIFIC SOCIETY.

Proceedings. 1891-93.

Vein structure in the Enterprise mine. 1895.

- The determination of bismuth in refined lead and in lead bullion. 1895.
 Notes on the precipitation of precious metals from cyanide. Solutions. 1895.
 The recent history and present status of chemistry. 1895.
 The volcanic rock of Alum Hill, Boulder Co., Colorado. 1895.
 The Costilla Meteorite. 1895.
 Notes on the geology of the western slope of the Sangre de Christo. 1894.
 The sampling and measurement of ore bodies in mine examinations. 1895.
- COLUMBIA COLLEGE, N. Y.
 Register, 1891-92.
 Catalogues, 1893-94 and 1894-95.
 School of mines, 1895-96.
- CONNECTICUT ACADEMY OF ARTS AND SCIENCES.
 Transactions, vol. 9. 1895.
- CONNECTICUT AGRICULTURAL EXPERIMENT STATION.
 18th annual report. 1894.
- COOPER UNION FOR THE ADVANCEMENT OF SCIENCE AND ART.
 Rules and regulations of the free night school, and woman's art school. 1894.
 36th annual report. 1895.
- CORY, C. B., Field Columbian Museum.
 Bulletins, 23, 45, 46, and 43 U. S. National Museum. 1893.
- COSTA RICA MUSEO NACIONAL.
 Annales, 1890-91.
 Estudios sobre las hormigas de Costa Rica. 1894.
 Informe, 1894-95, presentado por A. Alfaro.
- COSMOS CLUB, N. Y.
 Catalogue of the Cella collection of Alpine and Caucasian Views. 1894.
- DARTMOUTH COLLEGE.
 Catalogue for the year 1894-95.
- DAVIS, GEORGE R., Chicago.
 The Chicago Fair. 1893.
- DETROIT PUBLIC LIBRARY.
 14th report of the library commission. 1894.
- DIAZ, N., Mexico City, Mex.
 Catalogue descriptif des météorites du Mexique.
- DORSEY, GEORGE A., (the author), Cambridge, Mass.
 The character and antiquity of Peruvian civilization. 1895.
- DYCHE, L. L.
 Camp fires of a naturalist, by C. E. Edwards. 1893.
- ELECTRICAL ENGINEER PUBLISHING CO., THE.
 The electrical engineer. 1890-94.
- ELLIOT, D. G., Field Columbian Museum.
 Bulletins American Museum of Natural History, vols. 1-3. 1890-91.
- FARRINGTON, OLIVER C. (the author), Field Columbian Museum.
 James D. Dana as a teacher of geology. 1895.
- FEWKES, J. W., (the author) Boston, Mass.
 A comparison of the Sia and Tusayan snake ceremony. 1895.
 The Tusayan new fire ceremony. 1895.
- FOSTER, R. J., Scranton, Pa.
 The Colliery Engineer. 1892-94.
- FUESS, R. (the author), Berlin.
 Ergänzungen über krystallographische instrumente. 1894.
- GUATEMALA COMMISSION, World's Columbian Exposition.
 Informe relat. à la exposition de Guatemala in Chicago. 1894.
- HARTFORD PUBLIC LIBRARY.
 Author-list, novels, etc., in Hartford Library Association. 1893.
 Boys' and girls' books. 1895.
 Bulletins. 1893-94.

HARVARD UNIVERSITY.

Description of courses in Lawrence scientific school. 1894-95.

Papers used at the examination for admission to Lawrence scientific school. 1891.

HAY, O. P. (the author), Field Columbian Museum.

A consideration of some theories of evolution. 1891.

HAYES, SETH (the author), Cincinnati, O.

Another Miami valley skeleton. 1895.

The Shaw Mastodon. 1895.

HEAD, WILLIAM R. (the author), Chicago.

Paleozoic sponges of North America. 1894.

HILLIS, W. J., Albany, N. Y.

Catalogue of the Hurst collection of stuffed skins, by Frank A. Ward. 1894.

HILLS, R. C. (the author), Denver, Colorado.

Ore deposits of Camp Floyd district. 1894.

HODGE, F. W. (the author), Washington, D. C.

The early Navajo and Apache. 1895.

The first discovered city of Cibola. 1895.

HOVEY, E. O. (the author), Jefferson City.

A study of the cherts of Missouri. 1894.

HUNT, C. W. & CO., New York City.

Industrial railways. 1895.

ILLINOIS GEOLOGICAL SURVEY.

Geological survey of Illinois, 1883.

Report on geology and paleontology, vol. 8. 1890.

ILLINOIS STATE HISTORICAL LIBRARY.

Trustees' report. 1894.

ILLINOIS STATE LABORATORY OF NATURAL HISTORY.

Biennial report of the directors. 1894.

ILLINOIS STATE MUSEUM OF NATURAL HISTORY.

Bulletin nos. 3, 4, 5 and 6. 1894.

INDIANA ACADEMY OF SCIENCE.

Proceedings. 1891-93.

INTERNATIONAL NAVIGATION CO.

American Line. Red Star Line. 1895.

IOWA GEOLOGICAL SURVEY.

Second annual report. 1893.

Coal deposits of Iowa, vol. 2, by C. R. Keys. 1894.

JACK, ROBERT L., Brisbane, O.

Artesian water in the western interior of Queensland. 1895.

JACKSON, N. A., Springfield, Illinois.

The ornithology of Illinois by R. Ridgeway and S. A. Forbes. 1889.

JOHNSON, EDMOND, Dublin, Ireland.

Notes on the cross of Cong, by Margaret Stokes. 1895.

JONES, JOSEPH, New Orleans, La.

Original investigations on the natural history of yellow fever. 1854-1894, by J. Jones.

Biographical sketch of Dr. Joseph Jones.

KANSAS ACADEMY OF SCIENCE.

Transactions. 1881-88.

KANSAS STATE AGRICULTURAL EXPERIMENT STATION.

7th annual report for 1894.

KANSAS STATE HISTORICAL SOCIETY.

9th biennial report. 1893-94.

Transactions, vol. 4. 1890.

KIRKMAN, MARSHAL M., Chicago.

Further illustrations of primitive transportation in Japan and China. 1895.

The science of railways. 1894.

K. K. ACKERBAU MINISTERIUM.

Geologisch-bergmannische karten mit profilen von Idria, by Wilhelm Gobl. 1893.

K. K. ÖSTERREICHISCHE CENTRAL COMMISSION, World's Columbian Exposition.

Officieller bericht. 1894.

KNIGHT, F. C. (the author), Denver, Colorado.

A suspected new mineral from Cripple Creek. 1894.

KUNZE, OTTO (the author), Friedman, Germany.

Geogenetische beitrage. 1894.

LE BARON, WILLIAM (the author), Chicago.

4th annual report on the noxious and beneficial insects of Illinois. 1894.

LEHIGH UNIVERSITY.

Register. 1894-95.

LELAND STANFORD JUNIOR UNIVERSITY.

Circulars 1 and 2, act of legislature. 1891.

Circular No. 5, exercises of the opening day.

Register for 1894-95.

The American university and the American man, by George Elliot Howard. 1893.

The tariff controversy, 1789-1833, by O. L. Elliot. 1892.

LENOX LIBRARY, New York City.

The letter of Columbus on the discovery of America. 1892.

LINNEAN SOCIETY, New South Wales.

Abstract of proceedings. 1892-94.

LONDON ZOOLOGICAL SOCIETY.

Report of the council and auditors for 1893.

Catalogue of the library. 1887.

LOS ANGELES PUBLIC LIBRARY.

List of novels and tales. 1894.

LOW, LYMAN H. (the author), New York City.

Observations on the practice of counterfeiting coins and medals. 1895.

McCLURG, A. C., & CO., Chicago.

Catalogue of the collection of meteorites in the Peabody Museum. 1886.

McCORMICK, CYRUS H., Chicago.

Official descriptive and illustrated catalogue London Exhibition. 1851.

Official, descriptive and illustrative catalogue, supplement.

Reports of the juries, London Exhibition. 1851.

Illustrated catalogue, International Exhibition. 1862.

Reports of the juries, International Exhibition. 1862.

Official catalogue, fine arts department, International Exhibition. 1862.

Official catalogue, industrial department, International Exhibition. 1862.

Reports on the Paris Universal Exhibition. 1867.

Reports on the London International Exhibitions of 1872-73.

Reports of the International Exhibition. 1876.

Grounds and buildings of the Centennial Exhibition. 1876.

Artisan reports on the Paris Universal Exhibition. 1878.

Reports on the Colonial Section of the Colonial and Indian Exhibition, London. 1886.

Reports of U. S. Commissioners Universal Exposition, of 1889.

Official Congressional directory, 51st Congress. 1891.

Register U. S. Department of State.

McGREGOR, H. B., Pontiac, Ill.

Biblia, dat ist De gantsche Heilige Scripture.

MACKAY, GEORGE H. (the author), Boston, Mass.

The Scoters in New England with 10 other pamphlets on birds. 1891-95.

MANCHESTER CITY LIBRARY.

Annual report of the trustees. 1895.

Catalogue of English prose fiction. 1894.

MASSACHUSETTS BOARD OF WORLD'S FAIR MANAGERS.

Illustrated report. 1894.

METROPOLITAN MUSEUM OF ART.

25th annual report of the trustees. 1895.

Seal cylinders and other oriental seals, by William Hayes Ward.

MICHIGAN GEOLOGICAL SURVEY.

Report on Upper Peninsula and Lower Peninsula. 1895.

MICHIGAN MINING SCHOOL.

Catalogues, 1886-87, 89-90, 92-94.

MILWAUKEE PUBLIC LIBRARY.

17th annual report of the Board of Trustees. 1894.

MILLSPAUGH, C. F., Field Columbian Museum,

Hardwood: A journal of the hardwood and lumber trade. 1892.

Catalogue of the specimens and vegetable products sent to the World's Columbian Exposition, 1893, from Alto Magdalena, by C. C. Marquez.

MINNESOTA GEOLOGICAL AND NATURAL HISTORY SURVEY.

Bulletins, nos. 1, 2, 4-8 & 10.

Reports, 1872-73, '82, 1887-93.

23rd annual report, by N. A. Winchell. 1895.

Final report, vol. 3, pt. 1, Paleontology. 1895.

MISSOURI GEOLOGICAL SURVEY.

Paleontology, vols 4, 5, 6, and 7. 1894.

MISSOURI BOTANICAL GARDEN.

Sixth annual report. 1895.

NEWARK FREE PUBLIC LIBRARY.

Finding list, 2nd edition and 1st supplement. 1890-93.

Finding list, French and German books. 1894.

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Report of managing director Nevada Exhibit Midwinter Fair. 1895.
Report of Nevada State Board of World's Fair Commissioners. 1895.

LOANS AND DEPOSITS.

DEPARTMENT OF BOTANY.

- PROF. ALLAN MARQUAND, Princeton, N. J.
24 lantern slides of Yucatan subjects.
- C. F. MILLSAUGH, Field Columbian Museum.
160 species plants, herbarium specimens—West Virginia.

DEPARTMENT OF GEOLOGY.

- NEW YORK STATE MUSEUM, Albany, N. Y.
Triplite.
- RICHARD D'AILLY, Harrison, Ark.
20 crystallized specimens, lead and zinc ores.
- O. P. HAY, Field Columbian Museum.
Jaw of *Portheus thaumas*.
- PROF. A. H. COLE, Chicago.
1 framed bromide photograph of *Palæaster Eucharis*.
- CHAS. P. RICHARDSON, Princeton, Ill.
Photo-negative films of mining scenes.

DEPARTMENT OF HISTORY.

- NAVY DEPARTMENT, WASHINGTON, D. C.
3 Columbus Caravels and equipage.

GEORGE F. KUNZ, New York.

Columbian medal in impression foil.

J. C. MITCHEL, Chicago.

Collection of Exposition passes.

HERMAN HEINZE, Chicago.

Colored wall map of the grounds and buildings of the World's Columbian Exposition.

DEPARTMENT OF INDUSTRIAL ARTS.

TIFFANY ART & DECORATING CO., New York.

Specimens of Favrite glassware.

FRANK KAMMERER, Chicago.

Embroidered Chinese screen with carved wood frame.

WILL F. BREWER, Lake Forest, Ill.

609 Roman coins.

576 Greek coins.

91 Italian coins.

DEPARTMENT OF ZOOLOGY.

MATT. MULVIN, Chicago.

2 large valves of mollusk *Tridacna gigas*.

PROF. C. B. CORY, Boston, Mass.

90 species mammals.

LIBRARY.

E. L. BURCHARD, Field Columbian Museum.

18 volumes.

G. K. CHERRIE, Field Columbian Museum.

44 volumes.

GUSTAVE A. LEE.

Biblia, det er den gantskeheillige schrift.

C. F. MILLSPAUGH.

54 volumes and pamphlets.

L. W. NUTTALL.

Sylloge fungorum omnium hucusque cognitorum, P. A. Saccardo.

EXCHANGES.

DEPARTMENT OF BOTANY.

HARVARD COLLEGE, Cambridge, Mass.

101 species plants.

DEPARTMENT OF GEOLOGY.

UNITED STATES NATIONAL MUSEUM, WASHINGTON, D. C.

58 specimens of cave material from Wyandotte, Luray, Mammoth and other caves.

E. H. SARGENT & CO., Chicago.

Laboratory apparatus.

E. E. HOWELL, Washington, D. C.

Specimen of El Capitan meteorite.

FOR EXAMINATION.

DEPARTMENT OF ANTHROPOLOGY.

- S. D. MITCHELL, Ripon, Wis.
Archeological collection—Wisconsin.
- W. W. BLAKE, Mexico City, Mex.
2 collections of antiquities—Mexico.
- EDMOND JOHNSON, Dublin, Ireland.
Communion plates.
- E. O. MATTHEWS, Mexico City, Mex.
90 specimens of antiquities—Mexico.

DEPARTMENT OF BOTANY.

- PROF. L. H. PAMMEL, Ames, Iowa.
15 species of *Euphorbia*.
- PROF. WILLIAM TRELEASE, St. Louis, Mo.
Plants of genus *Euphorbia*.
- O. S. WHITMORE, Chicago.
1 species plant.

DEPARTMENT OF GEOLOGY.

- DR. L. VAN PATTEN, Chicago.
Supposed meteorite.
- H. B. DERR, Chicago.
Unknown Paleozoic crustacean.
Tooth of fish of the Carboniferous era.
- ALVIN JOINER, Polo, Ill.
Fossil mammal tooth.
- WILLIAM H. FRIEDRICK, Coldwater, Mich.
3 pieces of limestone (supposed meteorite).
- MRS. C. M. WINSTON, Chicago.
Orthoceras and *Ichthyocrinus*—Chicago limestone.
- MR. YEAKLE, Baltimore, Md.
Oil-bearing shale.
- DR. G. M. EMRICK, Chicago.
Trachyte—Montana.
- E. S. STRATTON, Chicago.
Gold ore—Cripple Creek, Col.
- JOSEPH ARGYLE, Coal City, Ill.
Carboniferous fossils.

DEPARTMENT OF ZOOLOGY.

- PROF. J. B. STEERE, Ann Arbor, Mich.
Collection of shells, insects and mammals.
64 mammals in alcohol.
- DENTON BROTHERS, Wellesley, Mass.
Mounted fish and model of snake.
- MORRIS GIBBES, Kalamazoo, Mich.
11 frogs and Salamanders.
- PROF. C. B. CORY, Boston, Mass.
Small collection of vertebrate animals.

DEPARTMENT OF ORNITHOLOGY.

- C. P. HOWE, Waukesha, Wis.
Birds.

THROUGH MUSEUM EXPEDITIONS.

DEPARTMENT OF ANTHROPOLOGY.

ALLISON V. ARMOUR EXPEDITION.

Specimens of sculptures, pottery, flint implements, jewelry, and other archeological material.—Mexico.

DEPARTMENT OF BOTANY.

ALLISON V. ARMOUR EXPEDITION.

800 botanical specimens.—Yucatan.

42 photo negatives.

DEPARTMENT OF GEOLOGY.

ALLISON V. ARMOUR EXPEDITION.

20 fossil shells.—Yucatan.

2 specimens *Rhyolite* and onyx.—Mexico.

DEPARTMENT OF ZOOLOGY.

SAN DOMINGO EXPEDITION.

147 photo negatives; 76 lizards; 4 snakes; fish; 1 bat; 2 crabs; 2 insects; 18 mammal skins and skulls.

ALLISON V. ARMOUR EXPEDITION.

Reptiles, fishes, crustaceas, mollusks, echinoderms, corals.—Mugeres and Cozumel Islands, Yucatan.

DEPARTMENT OF ORNITHOLOGY.

SAN DOMINGO EXPEDITION.

1,958 bird skins.

COLLECTED BY CURATORS.

DEPARTMENT OF GEOLOGY.

O. C. FARRINGTON.

10 glacial slabs and boulders.—Chicago Drainage Canal.

60 photographs Chicago Drainage Canal.

6 specimens Niagara fossils.—Chicago Drainage Canal.

39 specimens minerals and rocks.—Western Massachusetts.

3 Devonian fossils.—Western Massachusetts.

DEPARTMENT OF ZOOLOGY.

O. P. HAY.

Fishes, crustacea, insects, mollusks.—Desplaines River.

44 fishes, reptiles, crustacea, mollusks.—Havana, Ill.

3 carp and suckers.—Lake Michigan, Jackson Park.

4 perch, 1 minnow.—Lake Michigan, Jackson Park.

300 fishes, frogs, turtles, shells.—Kankakee River at Shelby, Ind., and Momence, Ill.

PURCHASES.

DEPARTMENT OF ANTHROPOLOGY.

Collection of ancient pottery.—Arizona.

1 pair antique Roman spurs, 1 buckle.

Berlin collection of plaster casts.—Egypt, Assyria, etc.

12 gold ornaments, 2 silver ornaments.—South America.

37 paintings of American Indians by George Catlin.

4 jars, 2 boats, 3 embroideries, and 2 sculptures.—Egypt.
 260 reproductions of Ancient Roman bronzes.—Naples.
 Jewelry, charms, emblems, bottles, vases, bronze needles, surgical instruments, papyrus.—Egypt.
 Collection of 263 articles of bronze and earthenware.—Etruscan and Roman.
 Sculptured hieroglyphs and figures, mummy cases, etc.—Egypt.
 2 glass cases, 1 bronze picture, 1 mirror.—Ancient Roman.
 3 glass vases, 4 bronze vases.—Ancient Roman.
 Navajo Indian woman's dress.—Arizona.
 Collection of Indian pottery, masks, blankets, pigments, etc.—Arizona.
 2 ladles, 1 strainer, 1 bowl, 1 tripod, 1 vase.—Egypt.
 Canopic jars, vases.—Egypt.
 25 specimens of Mummy cloth, 1 papyrus.—Egypt.
 Navajo Medicine Man's outfit.—Arizona.

DEPARTMENT OF GEOLOGY.

Collection of minerals.
 Microscope, and petrographic apparatus for cutting rock sections.
 Relief maps of U. S. glacial area, of Missouri, Kentucky, Conn. and Mass.
 5 slabs of red sandstone with fossil tracks.—Arizona.
 25 fragments bones of extinct elephant.
 18 mineral specimens.—Chester, Mass.

DEPARTMENT OF INDUSTRIAL ARTS.

Silver model of Horticultural Building, World's Columbian Exposition.
 84 specimens of Indian textiles.
 Loom with raw material.—Congo, Africa.
 89 pieces collection of jewelry antique in character.—Egypt, Etruria and Pompeii.
 11 cameos.
 44 intaglios.
 30 pieces of ceramic ware.

DEPARTMENT OF ZOOLOGY.

1 white deer.
 Carpenter's collection of shells.
 Collection of mammals and skeletons.
 Collection of shells.
 Skeleton and skin of Florida Crocodile.
 747 skins of rodents.
 21 skulls of various quadrupeds.
 Colored zoological slides.
 3 mounted mammals, Africa.
 16 skins and skulls of mammals, Africa.
 Skins of small mammals.
 1 Black Bass, 1 Jack Salmon, 2 Trout-Perch.—Chicago.
 3 mammals—Bear, Wild Ass and Hartebeest.—Asia and South America.
 1 Kudu—Africa.
 9 young and half grown turtles.

DEPARTMENT OF ORNITHOLOGY.

1 albino half-grown Wood-chuck—Saranac Lake, N. J.
 Collection of bird skins representing the fauna of North and Central America, Mexico and the West Indies, including 55 types of species.
 Group of two Eider Ducks in glass cases.
 386 Colorado bird skins, 114 species.

LIBRARY.

1100 volumes purchased (516 orders).
 94 periodicals subscribed for.
 587 volumes "Cory Ornithological Library."

ARTICLES OF INCORPORATION.

STATE OF ILLINOIS,

DEPARTMENT OF STATE.

WILLIAM H. HINRICHSEN, *Secretary of State*:

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

Whereas, a Certificate duly signed and acknowledged having been filed in the office of the Secretary of State, on the 16th day of September, A. D. 1893, for the organization of the COLUMBIAN MUSEUM OF CHICAGO, under and in accordance with the provisions of "An Act Concerning Corporations," approved April 18, 1872, and in force July 1, 1872, and all acts amendatory thereof, a copy of which certificate is hereto attached.

Now, therefore, I, William H. Hinrichsen, Secretary of State of the State of Illinois, by virtue of the powers and duties vested in me by law, do hereby certify that the said COLUMBIAN MUSEUM OF CHICAGO, is a legally organized Corporation under the laws of this State.

In Testimony Whereof, I hereto set my hand and cause to be affixed the great Seal of State. Done at the City of Springfield, this 16th day of September, in the year of our Lord one thousand eight hundred and ninety-three, and of the Independence of the United States the one hundred and eighteenth.



W. H. HINRICHSEN,
Secretary of State.

TO HON. WILLIAM H. HINRICHSEN,
SECRETARY OF STATE:

SIR:

We, the undersigned Citizens of the United States, propose to form a corporation under an act of the General Assembly of the State of Illinois, entitled, "An Act Concerning Corporations" approved April 18, 1872, and all acts amendatory thereof; and that for the purposes of such organization we hereby state as follows, to wit:

1. The name of such corporation is the "COLUMBIAN MUSEUM OF CHICAGO."
2. The object for which it is formed is for the accumulation and dissemination of knowledge, and the preservation and exhibition of objects illustrating Art, Archæology, Science, and History.

3. The management of the aforesaid museum shall be vested in a Board of FIFTEEN (15) TRUSTEES, five of whom are to be elected every year.

4. The following named persons are hereby selected as the Trustees for the first year of its corporate existence:

Ed. E. Ayer, Charles B. Farwell, George E. Adams, George R. Davis, Charles L. Hutchinson, Daniel H. Burnham, John A. Roche, M. C. Bullock, Emil G. Hirsch, James W. Ellsworth, Allison V. Armour, O. F. Aldis, Edwin Walker, John C. Black and Frank W. Gunsaulus.

5. The location of the Museum is in the *City of Chicago, County of Cook, and State of Illinois.*

George E. Adams, C. B. Farwell, Sidney C. Eastman, F. W. Putnam, Robert McMurdy, Andrew Peterson, L. J. Gage, Charles L. Hutchinson, Ebenezer Buckingham, Andrew McNally, Edward E. Ayer, John M. Clark, Herman H. Kohlsaat, George Schneider, Henry H. Getty, William R. Harper, Franklin H. Head, E. G. Keith, J. Irving Pearce, Azel F. Hatch, Henry Wade Rogers, Thomas B. Bryan, L. Z. Leiter, A. C. Bartlett, A. A. Sprague, A. C. McClurg, James W. Scott, Geo. F. Bissell, John R. Walsh, Chas. Fitzsimons, John A. Roche, E. B. McCagg, Owen F. Aldis, Ferdinand W. Peck, James H. Dole, Joseph Stockton, Edward B. Butler, John McConnell, R. A. Waller, H. C. Chatfield-Taylor, A. Crawford, Wm. Sooy Smith, P. S. Peterson, John C. Black, Jno. J. Mitchell, C. F. Gunther, Geo. R. Davis, Stephen A. Forbes, Robert W. Patterson, Jr., M. C. Bullock, Edwin Walker, Geo. M. Pullman, William E. Curtis, James W. Ellsworth, William E. Hale, Wm. T. Baker, Martin A. Ryerson, Huntington W. Jackson, N. B. Ream, Norman Williams, Melville E. Stone, Bryan Lathrop, Eliphalet W. Blatchford, Philip D. Armour.

STATE OF ILLINOIS, }
COOK COUNTY. } ss.

I, G. R. MITCHELL, a NOTARY PUBLIC in and for said County, do hereby certify that the foregoing petitioners personally appeared before me and acknowledged severally that they signed the foregoing petition as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 14th day of September, 1893.

G. R. MITCHELL,

(Seal)

NOTARY PUBLIC, COOK COUNTY, ILL.,

CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the corporate members held the 25th day of June, 1894, the name of the COLUMBIAN MUSEUM was changed to FIELD COLUMBIAN MUSEUM. A certificate to this effect was filed June 26, 1894, in the office of the Secretary of State for Illinois.

AMENDED BY-LAWS.

ARTICLE I.

MEMBERS.

SECTION 1. Members shall be of five classes, Annual Members, Corporate Members, Life Members, Patrons and Honorary Members.

SEC. 2. Annual Members shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of ten dollars (\$10.00), payable within thirty days after notice of election, and within thirty days after each recurring annual date. The failure of any person to make such initiatory payment and such annual payments within said time shall, at the option of the Board of Trustees, be ground of forfeiture of annual membership.

This said annual membership shall entitle the member to:

First.—Free admittance for himself and family to the Museum on any day.

Second.—Ten tickets every year admitting the bearer to the Museum on pay days.

Third.—A copy of every publication of the Museum sold at the entrance door, and to the annual reports.

Fourth.—Invitations to all receptions, lectures or other entertainments which may be given at the Museum.

SEC. 3. The corporate members shall consist of the persons named in the articles of association, and of such other persons as shall be chosen from time to time by the Board of Trustees at any of its meetings, upon the recommendation of the Executive Committee; provided, that such persons named in the articles of association shall, within ninety days from the adoption of these By-Laws, and persons hereafter chosen as corporate members, shall, within ninety days of their respective election, pay into the treasury the sum of twenty dollars (\$20.00) or more. The failure of any person to make such payments within said time shall, at the option of the Board of Trustees, be ground for forfeiture of his corporate membership. The annual dues of corporate members shall be five dollars (\$5.00) after the first year of membership, and no one shall exercise the rights of a corporate member until his dues are paid; and a delinquency of six months in the payment of annual dues shall be ground for forfeiture of corporate membership.

Only corporate members shall be eligible to the office of Trustee.

SEC. 4. Any person paying into the treasury the sum of five hundred dollars (\$500.00) at any one time shall become a life member, and may be chosen a corporate member by the Board of Trustees upon recommendation of the Executive Committee. Life members shall be exempt from all dues.

SEC. 5. Patrons shall be chosen by the Board of Trustees upon recommend-

ation of the Executive Committee from among persons who have rendered eminent service to the Museum. They shall be exempt from all dues, and by virtue of their election as patrons shall also be corporate members.

SEC. 6. Honorary members shall be chosen from among persons who have rendered eminent service to science, art or mechanics. They shall be chosen by a vote of the Trustees, and only upon unanimous nomination of the Executive Committee. They shall be exempt from all dues. In commemoration of the 14th day of October honorary members shall not be more than fourteen in number at any one time.

SEC. 7. All members of whatever class shall be eligible to appointment upon committees other than the Executive Committee.

ARTICLE II.

OFFICERS.

SECTION 1. The Board of Trustees named in the articles of association shall continue in office until the annual meeting in the year 1894, with power to fill vacancies occurring in the meantime. Before the date of such annual meeting said Trustees shall divide themselves by lot into three classes of five each, the term of office of one class to expire at the annual meeting of 1894, of another class at the annual meeting of 1895, and of another class at the annual meeting of 1896. The Board of Trustees, at its last regular meeting before the annual meeting in each year, shall elect by ballot from among the corporate members five persons as Trustees to serve for a term of three years, and until their successors are elected and qualified, and vacancies in the Board of Trustees occurring in the interval between such annual elections may be filled by a vote of the Board at any regular meeting.

SEC. 2. The other officers shall be President, two Vice-Presidents, Secretary and Treasurer, and an Executive Committee of four persons, who shall be chosen by ballot by the Board of Trustees from their own number as early as practicable after the annual meeting in each year. The President shall be *ex officio* a member of the Executive Committee, in addition to the other four members. The Secretary and Treasurer may, or may not, be the same person, and the Secretary may, or may not, be a corporate member.

Any officer may be removed at any regular meeting of the Board of Trustees by a vote of two-thirds of all the members of the Board. Vacancies in any office may be filled by the Board at any meeting.

SEC. 3. The President shall appoint from among the Trustees a Committee on Finance, a Committee on Property, an Auditing Committee, and a Committee on Buildings and Grounds, who shall serve during the pleasure of the Board.

SEC. 4. The officers shall perform such duties as ordinarily appertain to their respective offices, and such other duties as the Board of Trustees may from time to time devolve upon them. The Treasurer shall give bond in such amount and with such surety as shall be approved by the Executive Committee, and shall disburse the funds of the Museum only in accordance with the directions of the Executive Committee, upon the signature and counter-signature of such officers as the Executive Committee shall empower thereto.

SEC. 5. The Executive Committee shall have full control of the affairs of the Museum, under the general supervision of the Board of Trustees.

ARTICLE III.

MEETINGS.

SECTION 1. In commemoration of the discovery of America by Christopher Columbus, the annual meeting of the corporate members shall be held on the 14th day of October in each year, except when that day falls on a Sunday, and then upon the Monday following. At such meetings the corporate members shall transact such business as may properly come before the meeting. Special meetings of the corporate members shall be called at any time by the Secretary upon written request of twenty corporate members. In such case thirty days' notice by mail shall be given to corporate members of the time, place and purpose of such meetings.

SEC. 2. Regular meetings of the Board of Trustees shall be held upon the first Monday after the 14th day of October, and upon the last Monday of January, April and July of each year. Special meetings may be called by the President at any time upon reasonable notice by mail, and shall be called upon the written request of three Trustees. Five Trustees shall constitute a quorum.

ARTICLE IV.

AMENDMENTS.

SECTION 1. These By-Laws may be amended at any regular meeting of the Trustees by a two-thirds' vote of all the members present, provided the amendment shall have been proposed at the last regular meeting preceding, or shall be recommended by the Executive Committee.

CORPORATE MEMBERS.

GEO. E. ADAMS
O. F. ALDIS
ALLISON V. ARMOUR
PHILIP D. ARMOUR
ED. E. AYER
WM. T. BAKER
A. C. BARTLETT
JOHN C. BLACK
WATSON F. BLAIR
ELIPHALET W. BLATCHFORD
THOMAS B. BRYAN
EBENEZER BUCKINGHAM
M. C. BULLOCK
DANIEL H. BURNHAM
EDWARD B. BUTLER
JOHN M. CLARK
W. J. CHALMERS
H. C. CHATFIELD-TAYLOR
A. CRAWFORD
WM. E. CURTIS
GEO. R. DAVIS
JAMES H. DOLE
SIDNEY C. EASTMAN
JAMES W. ELLSWORTH
CHAS. FITZSIMONS
L. J. GAGE
HENRY H. GETTY
FRANK W. GUNSAULUS
C. F. GUNTHER
WM. E. HALE
WM. R. HARPER
AZEL F. HATCH
FRANKLIN H. HEAD
H. N. HIGINBOTHAM
EMIL G. HIRSCH

CHAS. L. HUTCHINSON
H. W. JACKSON
ARTHUR B. JONES
E. G. KEITH
HERMAN H. KOHLSAAT
BRYAN LATHROP
L. Z. LEITER
E. B. McCAGG
A. C. McCLURG
JOHN McCONNELL
CYRUS H. McCORMICK
ROBERT McMURDY
ANDREW McNALLY
GEO. MANIERRE
JOHN J. MITCHELL
ROBERT W. PATTERSON
FERD. W. PECK
ANDREW PETERSON
P. S. PETERSON
J. IRVING PEARCE
GEO. M. PULLMAN
N. B. REAM
JOHN A. ROCHE
HENRY WADE ROGERS
MARTIN A. RYERSON
GEORGE SCHNEIDER
JOSEPH STOCKTON
BYRON L. SMITH
WM. SOOY SMITH
A. A. SPRAGUE
MELVILLE E. STONE
EDWIN WALKER
R. A. WALLER
JOHN R. WALSH
NORMAN WILLIAMS

DECEASED.

JAMES W. SCOTT

GEORGE F. BISSELL

LIFE MEMBER.

By the payment of five hundred dollars.

W. J. CHALMERS.

HONORARY MEMBER.

CHAS. B. CORY.

PATRON.

ALLISON V. ARMOUR.

ANNUAL MEMBERS.

ABEL, JONATHAN	BEECHER, MRS. JEROME
ADAMS, CHARLES	BEIDLER, H. A.
ADAMS, CYRUS H.	BEIDLER, FRANCIS
ADLER, DANKMAR	BEIFELD, JOSEPH
ALLEN, W. I.	BELDEN, J. S.
ALLERTON, ROBERT H.	BELDING, MRS. L. S.
ALLERTON, MRS. S. W.	BENNETT, THOMAS
AMBERG, WILLIAM A.	BENSLEY, JOHN R.
ANDREWS, W. H.	BENTLEY, CYRUS
ANSLEY, ROBERT	BERRY, H. J.
ARMOUR, BARBARA	BICKFORD, R. K.
ARMOUR, GEORGE A.	BIDDLE, GEORGE W. A.
ARMS, W. A.	BIDDLE, W. B.
ARNOLD, J. B.	BILLINGS, C. K. G.
AVERY, FRANK M.	BILLINGS, DR. FRANK
BAKER, ALFRED L.	BINGHAM, A. E.
BAKER, FRANK	BIRKHOFF, JR., GEORGE
BAKER, SAMUEL	BLACKMARR, FRANK H.
BAILEY, EDWARD P.	BLACKSTONE, T. B.
BAILEY, E. W.	BLAIR, CHAUNCEY J.
BALDWIN, WILLIS M.	BLAIR, HENRY A.
BALLARD, ORVILLE W.	BLAIR, LYMAN
BANE, OSCAR F.	BLAIR, WILLIAM
BANGA, DR. HENRY	BLANCHARD, WILLIAM
BARNES, CHARLES J.	BLAINE, MRS. EMMONS
BARNHART, ARTHUR M.	BLISS, SAMUEL E.
BARRELL, JAMES	BLODGETT, H. W.
BARRETT, JOHN P.	BLUM, EDGAR C.
BARRETT, S. E.	BOAL, CHARLES T.
BARRINGTON, CHARLES V.	BOLTON, JAMES
BARTLETT, JOSIAH C.	BONFIELD, JOHN
BARTLETT, WILLIAM H.	BOOTH, A.
BATCHELLER, W.	BOOTH, W. VERNON
BAUER, PHIL. C.	BORDEN, JAMES U.
BEACH, F. G.	BORDEN, JOHN
BEAUVAIS, E. A.	BORLAND, MRS. JOHN J.
BECK, CHARLES A.	BOTSFORD, HENRY
BECKER, A. G.	BOUTON, C. B.

- BOUTON, N. S.
BRADLEY, J. HARLEY
BRADWELL, JAMES B.
BRAINERD, E. R.
BREMNER, DAVID F.
BRENOCK, JOHN
BRETT, THEODORE F.
BREWER, JOHN S.
BRIGGS, CLINTON
BROOKS, ALMON
BROOKS, J. W.
BROWN, GEORGE F.
BROWN, JOHN B.
BROWN, JOHN H.
BROWN, WILLIAM L.
BROWNE, EDWARD
BROWNELL, R. E.
BUEHLER, JOHN
BULKLEY, R. H.
BURKHARDT, H. S.
BURLEY, A. H.
BURLEY, CLARENCE A.
BURLEY, FRANK E.
BURNET, WM. H.
BURNHAM, AUSTIN A.
BURTON, LE GRAND S.
BYRAM, A.
- CAMERON, P. F.
CANNELL, S. WILMER
CARPENTER, A. A.
CARPENTER, MYRON J.
CARTON, L. A.
CHAMBERLIN, G. M.
CHANDLER, C. C.
CHANDLER, FRANK R.
CHANDLER, PEYTON R.
CHAPIN, MRS. M. A.
CHAPMAN, MRS. J. DEERE
CHAPPELL, C. H.
CHARLTON, JAMES
CHASE, CHARLES C.
CHASE, S. B.
CHASE, SAMUEL M.
CHENEY, C. C.
CHRISTY, F. C.
CLARK, ALSON E.
CLARK, GEORGE M.
CLARK, JONATHAN
CLARK, W. D.
CLARKE, CLINTON C.
CLARKE, L. H.
- CLIFF, CAPT. JOHN
CLAY, JOHN, JR.
CLOUD, JNO. W.
COBB, S. B.
COFFIN, C. H.
COLBY, JOHN A.
COLVIN, WILLIAM H.
COMAN, SEYMOUR
COMSTOCK, WILLIAM C.
CONKLING, ALLEN
CONNELL, CHARLES J.
CONOVER, CHARLES H.
COOLBAUGH, ADDIE R.
COOLIDGE, CHARLES A.
COONLEY, MRS. JOHN C.
CORNEAU, D. E.
CORWITH, CHARLES R.
COST, E. F.
COUCH, MRS. JAMES
COWAN, W. P.
COX, ALFRED J.
COX, EUGENE R.
COY, IRUS
CRITCHELL, R. S.
CULVER, MRS. CHARLES E.
CUMMINGS, E. A.
CURTIS, D. H.
CUSTER, J. R.
- DAKIN, R. H.
DAL, DR. JOHN W.
DAMSEL, W. H.
DANA, ARTHUR D.
DAVIS, CHAS. E.
DAVIS, HARRY G.
DAVIS, LEWIS H.
DAY, ALBERT M.
DAY, CHAPIN A.
DAYTON, MELVILLE E.
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DEAN, THAD.
DEERING, WILLIAM
DEKOVEN, JOHN
DELANO, F. A.
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DEWEY, DAVID B.
DICK, A. B.
DILLMAN, L. M.
DOANE, J. W.
DOBBINS, THOMAS S.
DODGE, GEORGE E. P.
DORR, GEORGE J.

DOW, WILLIAM C.
DOWNS, C. S.
DRAKE, JOHN B.
DUDDLESTON, GEORGE
DUMMER, W. F.
DEMMLER, K.
DUNHAM, MISS M. V.
DURAND, ELLIOTT
DURAND, H. C.
DWEN, JAMES C.
DWIGHT, JOHN H.

EAMES, L. H.
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EDMONDS, HOWARD O.
EDSON, J. M.
EGAN, WILEY M.
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ELLIOTT, EDWARD S.
ELLIOTT, W. S. JR.,
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FARRAR, MRS. ARTHUR
FAY, C. N.
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FERGUSON, B. F.
FERGUSON, CHAS. H.
FISCHER, FREDERICK
FISH, STUYVESANT
FISHER, L. G.
FITCH, M. J.
FLANNERY, J. L.
FLERSHEM, LEM. W.
FLOWER, JAMES M.
FOLTZ, FRITZ
FORD, J. S.
FOREMAN, EDWIN G.
FOREMAN, OSCAR G.
FORREST, WILLIAM H.
FORSYTH, ROBERT
FORSYTH, R. CLARKE

FOSTER, SAMUEL B.
FOWLER, E. M.
FRANK, HENRY L.
FRANK, JOSEPH
FRANK, MAX
FREER, NATHAN M.
FREES, B. M.
FREYTAG, MORITZ
FULGHUM, B. W.
FULLER, O. F.
GAGE, ALBERT S.
GANS, LEOPOLD
GARRISON, MRS. M. HARROLD
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GATES, RYERSON D.
GAYLORD, FREDERIC
GERALDINE, DION
GEROW, F. P.
GIBBS, JAMES S.
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GIFFORD, I. CUSHMAN
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GOODFELLOW, MRS. WM.
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GOODWIN, DANIEL
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GORMULLY, R. PHILIP
GRAHAM, EUGENE
GREEN, O. B.
GREY, CHARLES F.
GREY, WILLIAM L.
GRIDLEY, NELSON C.
GRIFFIN, T. A.
GRISWOLD, E. P.
GROSS, S. E.
GROSSMITH, ALFRED
GUION, GEORGE MURRAY
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HAINES, T. L.
HALLE, LOUIS
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HAMER, R. W.
HAMILTON, HENRY E.
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HARGREAVES, GEORGE
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HARRIS, GEORGE B.
HARRIS, JOHN F.
HARRIS, MADISON R.
HARRIS, N. W.
HARTMAN, ISAAC
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HASKELL, FREDERICK T.
HAVENS, A. E.
HAYES, D. H.
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HEATH, ERNEST W.
HEMMELGARN, H.
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HENNING, DR. FRANCIS A.
HIBBARD, F. V. S.
HINES, EDWARD
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HOFFLUND, ALEX.
HOGE, HOLMES
HOLDOM, JESSE
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HOLT, GEORGE H.
HOPKINS, JOHN P.
HORNER, ISAAC
HOSKINS, WILLIAM
HOUGH, CHARLES R.
HOUGHTELING, JAMES L.
HOWARD, FREDERICK
HOWLAND, WALTER M.
HOYNE, JAS. T.
HUGHITT, MARVIN
HULL, MORTON B.
HUNT, JAMES A.
HUTCHINS, EUGENE R.
HUTCHINSON, MRS. B. P.
HYDE, JAMES NEVINS

ILIFF, WILLIAM H.
INGALS, DR. EPHRAIM
INGALS, E. FLETCHER
INGRAHAM, MRS. G. S.
INSULL, SAMUEL
ISBESTER, T.
ISHAM, EDWARD S.

JACKSON, HERMAN B.
JANES, JOHN J.
JENKINS, T. R.
JENKINS, WILTON A.

JERREMS, MRS. W. G.
JESSUP, DR. ROBERT B.
JOHNSON, HERBERT B.
JOHNSON, J. M.
JOHNSON, W. P.
JOHNSTON, D. P.
JONES, J. S.
JUDSON, C. E.
JUDSON, HARRY PRATT

KAMMERER, F. G.
KAVANAGH, CHARLES J.
KEEFER, LOUIS
KEELER, HERVEY E.
KEEP, ALBERT
KEEP, WILLIAM F.
KEITH, EDSON
KEITH, W. SCOTT
KELLEY, DAVID
KELLOGG, MRS. C. P.
KELLOGG, JAMES B.
KELLOGG, MILO G.
KENNETT, FRANCIS J.
KENT, THOMAS
KEOGH, EUGENE
KEWLEY, J. R.
KIMBALL, EUGENE S.
KIMBALL, GEORGE F.
KIMBALL, MRS. MARK
KIMBALL, W. W.
KING, HENRY W.
KIRCHBERGER, S. H.
KLEINE, HENRY
KNIGHT, MRS. WILLIAM M.
KNOTT, HENRY A.
KOCHERSPERGER, D. H.
KOEHLER, THOMAS N.

LAFLIN, ALBERT S.
LAFLIN, ARTHUR K.
LAFLIN, GEORGE H.
LAFLIN, JNO. P.
LAFLIN, LYCURGUS
LAMB, CHAS. A.
LAMB, FRANK H.
LAMPTON, MRS. A. D.
LANGDON, R. B.
LARTZ, W. C. C.
LAWRENCE, EDWARD F.
LAWSON, VICTOR F.
LAY, A. TRACY.
LEACH, THOS. A.

LE BARON, WM.
LEFENS, THIES J.
LEGNER, WM.
LEITER, JOSEPH.
LELAND, WARREN F.
LEVI, HENRY C.
LEVY, ALEXANDER H.
LEWIS, JAMES F.
LEWIS, MRS. WILLIAM G.
LEYENBERGER, CHARLES
LIGHTNER, MILTON C.
LINCOLN, ROBERT T.
LINN, W. R.
LLOYD, EVAN
LOCKE, JOHN M.
LOEWENTHAL, B.
LOGAN, F. G.
LOMBARD, JOSIAH L.
LONG, EUGENE C.
LORD, GEORGE S.
LORD, J. B.
LOSS, C. E.
LOWY, HAIMAN
LUDLAM, DR. R.
LUNT, ORRINGTON
LYFORD, O. S.
LYFORD, W. H.
LYON, GEORGE M.
LYON, THOMAS R.

McCREA, W. S.
McDONALD, J. S.
McELIGOTT, THOMAS G.
McGUIRE, REV. H.
McKINLEY, WILLIAM B.
McKEEVER, JAMES L.
McKINLOCK, GEORGE A.
McKINLOCK, WILLIAM H.
McLEAN, W. A.
McLENNAN, J. A.
McNALLY, ANDREW
McNEIL, MALCOLM
McVICKER, J. H.
McWILLIAMS, LA FAYETTE
MacGEAGH, JOHN W.
MacVEAGH, FRANKLIN
MAIR, CHARLES A.
MALLETTE, J. P.
MANASSE, LOUIS
MANSON, WILLIAM
MANSURE, E. L.
MANVEL, MRS. ANNA F.

MARK, CLAYTON
MARKWALD, LIEUT. ERNST
MARSH, CHARLES A.
MARSHALL, GEORGE E.
MARSTON, THOS. B.
MARTIN, DR. FRANKLIN H.
MASON, EDWARD G.
MATHEWS, GEORGE W.
MATTHIESSEN, C. H.
MAURER, WILLIAM
MAY, HORATIO N.
MAYER, DAVID
MAYER, LEVY
MAYO, J. B.
MEAD, W. L.
MEARS, CHARLES
MERRICK, L. C.
MERRYWEATHER, GEORGE
MEYER, ISAAC
MEYER, MRS. M. A.
MIDDLETON, GEORGE
MILLER, CHARLES P.
MILLER, DELASKIE
MILLER, HENRY G.
MILLER, THOMAS
MILLER, DR. TRUMAN W.
MILLIKEN, WALTER L.
MILLS, FRANK O.
MILNOR, LLOYD
MITCHELL, J. J.
MIXER, C. H. S.
MOORE, LAWRENCE C.
MOORE, JAMES HOBART
MOORE, N. G.
MOORE, SILAS M.
MOORE, WILLIAM H.
MORGAN, GEO. C.
MORISON, GEORGE S.
MORRIS, EDWARD
MORRIS, IRA
MORRIS, NELSON
MORSE, CHARLES J.
MORSE, JAY C.
MOULTON, D. A.
MOULTON, GEORGE M.
MUHLKE, JOSEPH H.
MULLIKEN, A. H.
MULLIKEN, CHARLES H.
MUNRO, WILLIAM
MURDOCH, THOMAS
MURDOCK, DR. E. P.

NATHAN, ADOLPH
NATHAN, HERMAN
NELSON, MURRY
NEWBURY, GEORGE G.
NEWELL, FRANK V.
NEWELL, O. S.
NOLAN, JOHN H.
NORTON, HORATIO N.
NORTON, JAMES S.
NORTON, O. W.
NOYES, LAVERNE W.

OEHNE, THEODORE
ORB, JOHN A.
ORCHARD, JOHN GRANT
OSBORN, HENRY A.
OSBORNE, FRANK SAYRE
OTIS, CHARLES T.
OTIS, GEORGE L.
OTIS, L. B.
PALMER, MILTON J.
PALMER, PERCIVAL B.
PAPIN, MRS. K. A.
PARKER, A. K.
PARKER, FRANCIS W.
PARKER, F. W.
PARKES, JOHN C.
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PEACOCK, C. D.
PEASE, JAMES
PEASLEY, J. C.
PECK, CLARENCE I.
PECK, GEORGE R.
PECK, WALTER L.
PEEK, W. H.
PENNINGTON, T. C.
PERRY, FREDERICK B.
PETERSEN, GEORGE L.
PETERSON, WILLIAM A.
PETTIBONE, A. G.
PIETSCH, C. F.
PIKE, EUGENE S.
PINKERTON, W. A.
PITKIN, HARVEY E.
PLUMMER, JONATHAN W.
POND, IRVING K.
POPE, MRS. CHAS. B.
PORTER, FRANK W.
PORTER, H. H.
PORTER, MRS. JULIA F.
PORTER, WASHINGTON
POTTER, ORRIN W.

PRESTON, DEMING H.
PRIMLEY, J. P.
PRUSSING, EUGENE E.
PUSEY, DR. CHARLES M.

QUICK, JOHN H. S.

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RAND, JOHN C.
RANDALL, THOMAS D.
RAY, FRANK H.
RAYNER, JAMES B.
RAWSON, STEPHEN W.
REECE, ALONZO N.
REHM, JACOB
REID, W. H.
REW, HENRY C.
REYNOLDS, GEORGE B.
RHODE, JOHN C. W.
RICE, DR. N. B.
RICHARDS, J. T.
RICKCORDS, GEORGE E.
RIDGWAY, WM.
RIPLEY, E. P.
ROE, CHAS. S.
RODMAN, SAMUEL
ROLOSON, R. W.
ROOD, JAMES
ROSENBERG, JACOB
ROSENFELD, MAURICE
ROSENTHAL, ISAAC
ROSENTHAL, JULIUS
ROSENTHAL, OSCAR
ROTHSCHILD, A. M.
ROTHSCHILD, FRED
ROWE, MRS. CHARLES H.
RUMSEY, GEORGE D.
RUNNELLS, J. S.

SABIN, A. R.
SATTLEY, W. N.
SAWYER, CHARLES B.
SCHINTZ, THEODORE
SCHINTZ, THEO. H.
SCHLESINGER, LEOPOLD
SCHMIDT, GEORGE A.
SCHMIDT, L.
SCHMIDT, O. L.
SCHMIDT, ANTHONY
SCHNEIDER, OTTO C.
SCHNERING, JULIUS
SCHWARTZ, G. A.
SCULL, HENRY

SEARS JOSEPH
SEAVERNS, JR., GEORGE A.
SECKEL, ALBERT
SEDERHOLM, E. T.
SEIPP, MRS. C.
SEIPP, W. C.
SELZ, MORRIS
SENN, MRS. N.
SERCOMB, ALBERT L.
SEWELL, BARTON
SHAFFER, J. C.
SHANKLAND, EDWARD C.
SHAW, GILBERT B.
SHEDD, JNO. G.
SHEPARD, J. H.
SHEPARD, MRS. HENRY MAR-
TIN
SHERWOOD, H. M.
SHERWOOD, MARC
SHIPMAN, DANIEL B.
SHORTALL, JOHN G.
SHUTE, JOHN W.
SIEGEL, FERDINAND
SIMM, JAMES C.
SIMMONS, J. J.
SIMONDS, GILBERT
SIMONS, DR. CHARLES J.
SINGER, A. L.
SKINNER, THE MISSES
SLOCUM, J. E.
SLOSSON, ANSON H.
SMITH, CHARLES HEAD
SMITH, CHARLES MATHER
SMITH, F. B.
SMITH, JOHN C.
SMITH, ORSON
SMITH, ROBERT J.
SNELL, MRS. HENRIETTA
SNOW, MISS HELEN E.
SNYDER, REV. CHAS. C.
SODEN, G. A.
SOLLITT, OLIVER
SONTAG, FRITZ
SOMERVILLE, ROBERT
SOPER, ALEX. C.
SOPER, JAMES P.
SOUTHWELL, H. E.
SPALDING, JESSE
SPENCE, MRS. ELIZABETH E.
SPRAGUE, O. S. A.
STANLEY, FRANK W.

STANTON, W. A.
STEELE, HENRY B.
STICKNEY, MRS. EDWARD S.
STILES, JOSIAH
STIRLING, W. R.
STOCKTON, JOHN T.
STRAHORN, ROBERT
STRAUS, SIMON
STROBEL, C. L.
STUART, ROBERT
STUDEBAKER, PETER E.
SULLIVAN, LOUIS H.

TAYLOR, SAMUEL G.
TEMPLETON, THOMAS
THORNE, GEORGE R.
TIFFANY, H. S.
TILTON, MRS. L. J.
TOBEY, FRANK B.
TREAT, CHARLES P.
TRIPP, C. E.
TRUAX, CHARLES
TRUDE, A. S.
TRUE, ALBERT W.
TRUMBULL, JOHN H.
TURBIN, DR. LOUIS M.
TURNER, E. A.
TURNER, VOLUNTINE C.
TYRRELL, JOHN
TYSON, RUSSELL

UIHLEIN, EDWARD G.
UPTON, GEORGE P.

VAN HAMM, F. R.
VIERLING, LOUIS
VIERLING, ROBERT

WACKER, CHARLES H.
WAIT, HORATIO L.
WALKER, ALDACE F.
WALKER, AMOS W.
WALKER, GEORGE C.
WALKER, HENRY H.
WALKER, JAMES R.
WALKER, ROBERT P.
WALKER, WM. B.
WALKER, W. S.
WALLER, EDWARD C.
WARNER, EZRA J.
WATKINS, WILLIAM W.
WATSON, A. D.

WATSON, JAMES E.
WATSON, WILLIAM J.
WAUGH, DR. WILLIAM F.
WEBSTER, GEORGE H.
WEINSHEIMER, A. S.
WELLING, JOHN C.
WELLINGTON, A. G.
WELLS, B. R.
WERNER, P. E.
WHEELER, CHARLES W.
WHEELER, FRANCIS T.
WHEELER, G. H.
WHITE, A. STAMFORD
WHITE, WM., SR.
WHITEHEAD, WM. M.
WHITEHOUSE, FRANCIS M.
WICKES, T. H.
WILLIAMS, ABRAM
WILLIAMS, DIXON C.
WILLIAMS, SIMEON B.
WILLING, MRS. HENRY J.
WILMARTH, MRS. H. M.

WILSON, E. C.
WILSON, M. H.
WILSON, WM. J.
WILSON, W. M.
WING, DR. ELBERT
WING, THOMAS W.
WINK, HENRY
WINSLOW, Z. R.
WITHROW, REV. J. L.
WOLF, FRED W.
WOOD, JOHN H.
WOOD, S. E.
WOODCOCK, LINDSAY T.
WOODHEAD, J. E.
WOODLAND, GEORGE
WOOLF, ISAAC
WRIGHT, THOS. A.

YERKES, CHARLES T.
YOUNG, CARYL
YOUNG, WM. S.

DECEASED.

F. C. OSBORN.

LIST OF DONORS OF WORLD'S COLUMBIAN EXPOSITION STOCK.

Aagard, J.	10	Armour, Allison V.	100
Abbott, A. H. & Company . . .	50	Armsby, J. K., Company . . .	100
Abendpost Company, The . . .	100	Armstrong, Charles G.	5
Adair, John D.	5	Arnold Brothers	100
Adams, F. F., Tobacco Company .	50	Artingstall, Samuel G.	100
Adams, George E.	200	Atlas Nat'l Bank of Chicago . .	200
Adams, J. McGregor	5	Austin, F. C.	50
Adams & Westlake Co., The . .	250	Ayer, B. F.	25
Adams, Wm. Henri	10	Ayer, Ed. E.	250
Adler, Dankmar	25	Bach, Becker & Company . . .	25
Aiken, Lois M.	2	Baeder, Adamson & Company .	100
Aiken, Wm.	1	Baker, Charles S.	20
Ajax Forge Company	100	Baker, Frank	20
Aldrich, J. Frank	10	Baker & Vawter Company . . .	10
Allen, Benj. & Co.	250	Balding, Jennie M.	5
Allen, Charles L.	25	Baldwin, Annie S.	1
Allen, E. L.	5	Baldwin, Chas. W.	10
Allen, E. L.	1	Baldwin, John A.	30
Allen, George E.	5	Ballard, Addison	10
Allen, J. D.	20	Ballard, Thomas C.	2
Aller, D. S.	1	Barbour, James J.	2
Alt George E.	1	Barnes, J. M.	5
Alzen, Carl A.	1	Barnhart Brothers & Spindler .	150
American Cutlery Company . . .	25	Barnhart, Kenneth	5
Am. Emp. Liability Ins. Co., The .	25	Barrett, J. P.	5
American Exchange Nat'l Bank .	500	Barrett, S. E., Mfg. Co.	510
American Express Company . . .	2500	Bartlett, Frazier & Co.	50
American Soda Fountain Co. . . .	25	Barton, E. M.	20
Ames and Frost Company	100	Batcheller, W.	20
Ames, H. D.	1	Bateman, S.	10
Anderson, D. F.	10	Battams, George E.	1
Anderson, W. P.	5	Baude, Frank W.	1
Andrews, Elliott R.	1	Bayley, Edwin F.	25
Andrews, W. J.	5	Becker, A. W.	25

NOTE.—The number of shares is equivalent to the number of dollars donated in each case, as the declared dividend was ten per cent and the shares were ten dollars each.

Becker, P., & Company	50	Bradstreet Company, The	100
Bee Hive, The	250	Brady, Charles G.	1
Beetle, George L.	2	Brainard's Sons Co., The S.	50
Beggam, Bernard	1	Brainard, I. G.	1
Beidler, J.	100	Braumeister Pub. Co., Der	10
Beiersdorf, J.	2	Braun, George P.	50
Belding Bros. & Company	250	Brennan, Edward P.	1
Bell, Conrad & Company	50	Brewster, Edward L., & Co.	101
Benedict, George H., & Company	25	Breytspraak, H. A.	2
Benedict, G. M.	5	Bridgman, Arthur	1
Benham, Trumbull & Co.	50	Bridgman, Florence L.	1
Bennett, E. W.	1	Bridgman, H. L.	10
Bennett, H. E.	5	Brinks Chicago City Ex. Co.	50
Bennett, R. J.	110	Brintnall, Solva	10
Bent, George P.	25	Brintnall, W. H.	10
Bentley, Walter G.	1	Brooke, Albert H.	1
Berg, A.	2	Brooke, Lincoln	1
Bert, Miss E.	1	Brooker & Holmes.	20
Bigelow Bros.	100	Brooks, J. F.	1
Birith, Henry	25	Brower, D. R.	50
Birr, Fred F., Jr.	1	Brown, A. E.	25
Bishop, A., & Company	100	Brown, A. F.	1
Bishop, Charles Nelson	10	Brown, C. A.	2
Bissell, G. F.	50	Brown, E. W.	2
Blackwell's Durham Tobacco Co.	100	Brown, H. C.	5
Blakelidge, G. W.	1	Brown, Harry M.	20
Blatchford Cartridge Works	25	Brown, Henry F.	10
Blatchford, E. W., & Company	250	Brown, Paul	2
Blayney, Arthur C.	5	Brown, R. L. C.	2
Blayney, T. C.	5	Browning King & Co.	250
Bleicke, F. W.	2	Buck & Rayner	100
Bliss, Bullard & Gormley	100	Buck, Silas E.	5
Bliss, George H.	10	Buckingham, J.	10
Bliss, N. W.	20	Buehler, John	100
Boake, A. F.	1	Buehler, John W.	5
Boal, Charles T.	25	Buescher, Henry	1
Bode, Fred	25	Bull, L. J.	5
Bodman, A. C.	5	Bundy, John C.	25
Bolles and Rogers	30	Burdick, F. M.	2
Boltwood, H. L.	3	Burley & Co.	250
Bond, William A.	50	Burman, Edw. F.	1
Booth Packing Co.	250	Burnham, D. H.	150
Borden, William	300	Burton, LeGrand	25
Born, M., & Company	50	Burton, S. Lester	25
Bowen, Arthur P.	10	Bush, Simmons & Co.	75
Bowen, Stephen T.	1	Bushnell, J. A.	1
Bowen, S. T.	2	Buss, Frederick B.	5
Boyer, Louis J.	5	Butler Brothers	500
Boyles, Charles D.	1	Butler, Walter	5
Bradley, Theo., Jr.	1	Buttolph, A. C.	85
Bradshaw & Wait	25	Brachvogel, Charles H.	10
		Bryan, Thomas B.	100

Byford, Henry T.	10	Chicago Wilmington & Ver-	
Byrne, Margaret	5	million Coal Company, The	100
Byrne, Sarah	5	Christensen, A. L.	1
Cahn, B. R.	50	Clark, Melville	10
Cahn, Wampold & Company .	250	Clay & Forrest	50
Cameron, Amberg & Company	100	Clay, Robinson & Co.	150
Cameron, John McRae	1	Cleveland, L. D.	2
Cameron, W. F.	3	Cleveland Twist Drill Co. . .	20
Cameron, W. H.	10	Cluett, Coon & Company . . .	300
Campbell & Custer	50	Cobb, Henry Ives	50
Cantrovitz, Harry S.	1	Cobb, S. B.	100
Cantrovitz, Admr. of J. S. . .	1	Cobb, Thomas A.	1
Cantrovitz, Sol. M.	1	Cochran, J. Lewis	100
Carlisle, W. K.	5	Cohn, Daniel A.	20
Carlson, Alfred	1	Cole, George E., & Company .	100
Carnall, J. M.	1	Colton, A. M. F.	15
Carpenter, W. M.	1	Coman, Seymour	10
Carter, L. J.	2	Commercial Cable Company .	250
Carrington, William T. . . .	50	Comstock, W. C.	300
Carse, David B.	5	Conkey, W. B.	100
Carson, Pirie, Scott & Company	2500	Conover, C. H.	10
Carter, E. P.	1	Cook, Henry L.	1
Cary, Eugene	50	Coolidge, Winthrop	1
Case, J. I., T. M. Co.,	100	Coolidge, W. G.	7
Case & Martin	40	Cooper, John S.	10
Castle Shirt Company, The . .	75	Corn Exchange Bank	750
Catlin, C. E.	2	Cornell, Paul	15
Chace, L. J.	2	Crandall, C. D.	3
Chace, Paul Griswold	1	Crane Company	1000
Chace, Robert Arnold	1	Crane Elevator Company . . .	750
Chadevick, J. P.	1	Crawford, A.	50
Chambers, J. B. & Co.	150	Crerar, Adams & Company . .	250
Champlin, A. H.	5	Crilly, W. M.	25
Chandler, G. M.	2	Critchell, R. S. & Co.	100
Chandler, Joseph B.	3	Crook, V. E.	1
Chapin & Gore	500	Crosby Steam Gage & Valve Co.	50
Chesebro, W. H.	5	Crouch, R. B. & Co.	25
Chicago Arc Light & Power		Cumberland, A. A.	1
Company	200	Curtis, Agustus D.	1
Chicago City Railway Co. . .	10000	Cushing, E. T.	50
Chicago Corset Company . . .	100	Cutler, A. J.	1
Chicago Edison Company, The	250	C. Y. Transfer Company . . .	10
Chicago Folding Box Company	10	Daily National Hotel Reporter	10
Chicago Packing & Prov. Co. .	250	Danforth, I. N.	10
Chicago Rawhide Mfg. Co. . .	150	Daniels, A. M.	2
Chicago Screw Company . . .	40	Dashiell, L.	1
Chicago Shot Tower Works . .	25	Davis, Anna I.	1
Chicago Slate & Mantel Co. .	20	Davis Brothers	10
Chicago Spring Butt Co. . . .	10	Davis, Charles W.	3
Chicago Sugar Refining Co. . .	150	Davis, Geo. R.	100
Chicago Telephone Company .	500	Davis, The John, Company . .	100
Chicago Varnish Company . . .	100	Daube, M. Jacob	20

Dauchy Iron Works	25	"Economist," The	25
Dean, Bader & Company	100	Edwards, W. H.	2
Dean, Charles A.	2	Eggleston, Malette & Brownell	100
Dean, John E.	5	Eichberg, Max	10
DeCosta, R.	5	Eichin, Charles L.	10
Deering, Wm. & Co.	1000	Eisendrath, B. W., & Company	25
Delaney & Murphy	100	Eisendrath, Henry	1
Dengler, Gottlob	5	Eisendrath, W. N., & Company	50
Dennis, Joseph S.	5	Ela, John W.	3
Dent, Thomas	25	Elkins, M.	25
Devlin, J. B.	25	Ellsworth, James W.	250
Devore, A. A., & Sons	20	Elmer & Anderson	25
Dewey, Albert B.	150	Embree, J. R.	25
Dewey, Charles P.	150	Emmerich, Charles, & Co.	100
Dewitz, H.	1	Endicott, E. M.	10
De Wolfe, Wallace L.	5	England, A. H.	1
Dexter, Miss Lydia A.	1	Englewood Electric Light Co.	10
Dexter, Mrs. Ransom	1	Erickson, Andrew Magnus	2
Dickinson, The Albert, Co.	150	Etheridge, Francis	10
Dickinson, Nathan	1	Eureka Fire Hose Company	50
Diffley, M. W.	50	Evans, Orrin L.	5
Disston, Henry, & Sons	100	Evatt, Wm.	5
Dobbins, Thomas S.	9	Everett, W., & Son	10
Dole, James H.	50	Ewen, John M.	11
Donnelley, R. R., & Sons Co.	50	Fairbanks, The E. & T., & Co.	250
Dore, John C.	100	Falkenau, Victor	50
Douglass, William A.	5	Farlin, J. W.	25
Dovenmuehle, H. F. C., & Son	100	Farrell, P.	20
Drake, Parker & Co.	1500	Farwell, Arthur B.	5
Drake, T. D.	3	Farwell, George E.	15
Drew, Charles W.	50	Farwell, John V., Company	1000
Drury Brothers	20	Fay, C. M., & Co.	50
"Dry Goods Bulletin"	10	Fay, C. N.	500
Duck Brand Company, The	50	Felsenthal, Eli B.	25
Dun, R. G., & Co.	100	Ferguson, B. F.	50
Dundee, William	10	Ferguson, Chas. H.	100
Dunham, J. S.	20	Ferguson, George W.	10
Dunham Towing & Wrecking Co.	100	Fiedler, A. B., & Sons	100
Dunlap, R., & Co.	300	Field, Marshall & Co.	10000
Dunlop, Simpson	15	Fire Extinguisher Mfg. Co.	20
Dunning, Orrin S.	1	Fisher, A. F., & Co.	25
Durand, Henry C.	129	Fiske, Geo. F.	1
Durgin, John C.	10	Fleischmann & Company	50
Dutton, D. D.	1	Fleming, R. H.	100
Dyneiewicz, Wladislaus	20	Flood, J. Ramsay (M.D.)	25
Dyrenforth & Dyrenforth	10	Florsheim Bros.	25
Easton, Charles L.	25	Flower, J. M.	30
Eberle, Wm. H.	5	Follansbee, S. M.	10
Ebersole, Jos.	5	Follansbee, Tyler & Co.	50
Eckenbrecht, H. F.	1	Foote, E., Jr.	50
Eckhart & Swan	100	Ford, J. S., Johnson & Com- pany	100

Ford River Lumber Co.	50	Gradle, Dr. H.	10
Forsythe, R.	50	Gradle & Strotz	100
Fowler, Charles W.	1	Greenebaum Sons	25
Fox, George H.	5	Grey, Clarke & Engle	225
Franklin, L.	10	Griffin Wheel & Foundry Co.	100
Franklin MacVeagh & Co.	500	Griggs, F. H.	1
Fraser, George	10	Grimes, W. F.	5
Froehlich, Max	3	Griswold, Palmer & Co.	400
Frost, Charles S.	50	Grommes & Ullrich	500
Frost, W. E., Mfg. Company	25	Gross, Howard H.	50
Fuller's Adv. Agency, Chas. H.	25	Gross, S. E.	350
Fuller, A. M.	110	Gobel, E. F.	50
Fuller, D. G.	2	Goodman, Mrs. D.	1
Fuller & Fuller Co.	350	Goodman, Miss Grace	1
Fuller, George A.	50	Goodrich Transportation Co.	100
Furst, Conrad	100	Goodwin, Daniel	25
Gage Brothers & Company	100	Gould, I. L., & Company	25
Gage, Downs Company	25	Gould, R. M.	5
Gage, Lyman J.	250	Hack, Patty A.	1
Galloway, Helen M.	25	Hale Elevator Company	750
Galloway, James B.	10	Hall, Thomas C.	5
Gans, Samuel	25	Hallberg, L. G.	50
Garlichs, Fred A. H.	1	Halsted, Edward M.	1
Gartside & Leffingwell	25	Hamann, C. F.	1
Gary, Joseph E.	25	Hambleton, C. J.	50
Gauer, N. J., Jr.	1	Hamilton, D. G.	50
Gaver, F. P.	1	Hamilton & Merryman Co.	100
Gaylord, E.	100	Hamlin, George A.	10
Geehr & Gardner	20	Hammer, D. Harry	25
Gentry, C. H.	25	Hammond, C. L.	5
Georg, Adolph	10	Hammond, Fry & Co.	25
George, J. K.	2	Hanaford, H. M.	2
Gerts, Lumbarb & Company	100	Handy, Henry H.	10
Gibb, J. W.	5	Hanford, P. C.	100
Gibbs, F. C.	50	Hankey, F. L.	1
Giesler, Rudolph G.	1	Hanlon, Thomas J.	1
Gilbert & Bennett Mfg. Co.	25	Harbert, W. S.	10
Gilbreath, W. S.	1	Hardy, F. A.	25
Gillespie, John	7	Hardy, Henry W.	3
Gillespie, Robert H.	1	Harlan, A. W.	100
Gillespie, Thomas	3	Harris, Mrs. D. J.	1
Gillett, E. W.	200	Harris, N. W., & Co.	153
Gillette, J. F.	50	Harshberger, C. R.	25
Gillette, Josephine M., Exec'x.	50	Hartman, L.	20
Gillick, W. M.	100	Hartwell, Edwin S.	50
Gilmer, Thomas L.	10	Hatch, Azel F.	50
Gilmore, T. W.	2	Hately, John C.	100
Ginn & Company	20	Hately, Walter C.	50
Ginter, F. W.	1	Hathaway, Franklin	10
Githens, J. N.	2	Haskell, G. W.	5
Glover, George H., Adm.	46	Haskell, L. P.	5
Glover & Willcomb	50	Haugan & Lindgren	10

Hautzenroeder & Company	10	"Hotel World"	25
Hayes, Nellie L.	10	Hovey, E. G.	2
Hayt, H. C.	25	Hoyne, Florence A.	1
Haywood, I.	5	Hoyne, Frank G.	10
Heal, John W.	1	Hubbard, D. B.	2
Heath, Charles A.	1	Hufton, Thomas	1
Heath & Milligan Mfg. Co.	100	Hugel, L. P.	3
Hecht, A. A.	1	Hughitt, Marvin, trustee	5000
Hecht, F. A.	50	Huling, J. B.	11
Hedstrom, E. L., & Co.	100	Hull, M. B.	20
Heffron, Helen M.	1	"Humane Journal," The	10
Heffron, Ida C.	1	Humiston, Keeling & Co.	100
Heineck, Aug.	1	Hunt, J. H.	50
Heinemann, F. W., Company	25	Hunt, Robert W., & Company	100
Heissler & Junge Co.	100	Hunter, Thomas M.	1
Hellyer, Frederick	10	Huntington, Bessie B.	1
Hellyer, Mrs. Georgiana	5	Huntoon, Charles	5
Hellyer, Miss Marion	5	Hurlbut, V. L.	25
Helmer & Frank.	25	Huscher, A.	5
Hempstead, Charles E.	2	Hutchinson, Charles A.	1
Henrotin, F.	10	Hutchinson, Chas. L.	100
Herrick, John J.	25	Hutchinson, W. H., & Son	25
Hertle, Louis	5	Hyman, R. W., Jr. & Co.	200
Hetherington, H. J.	3	Hypes, Fanny L.	1
Heywood, P. B.	10	Hypes, W. F.	1
Hibbard, Spencer, Bartlett & Co.	1500	Illinois Central R. R. Co.	5000
Hibernian Banking Association	150	Illinois Leather Company	50
Hicks, Oliver H.	20	Illinois Paper Company	100
Hill, James J.	2500	Illinois Trust & Savings Bank	850
Hill, Matson	30	Inderrieden, J. B., & Bro.	50
Hiller & Kollenberg	20	"Industrial World" Co., The	10
Hillman, C. H.	2	Ingalls, Ephraim	40
Hilmers, Henry	20	Ingalls, M. E., Prest. of the C., C. C. & St. L. Railway Co.	750
Hinckley James O.	5	Ingals, E. Fletcher	50
Hirsch, Sol. J.	2	Ingram, J. S.	5
Hishen, Margaret	1	"Inland Architect"	10
Hitchcock, A. B.	1	Instantaneous Water Heating Co., The	10
Hitchcock, R. M.	10	International Nav. Co., The	500
Hitt, W. I.	1	Jackson, Charles C.	1
Hoard, Charles D.	5	Jackson, F. W.	10
Hogan & Hisgen	5	Jackson, H. W.	30
Holabird & Roche	100	Jackson, J. M.	1
Holdom, Jesse	50	Jackson, J. M.	5
Hollis & Duncan	50	Jackson, Luis,	1
Holt Lumber Company	50	Jackson, S. K.	25
Holton, F. G.	1	Jacobowsky, Harry	1
Hooker, H. M., Company	200	Jay Dwiggins & Company	10
Hopkins, M. H.	1	Jeffery, E. T.	10
Hormuth, Joseph	2	Jenkins, John E.	10
Horton, O. H.	20	Jenkins, Kreer & Co.	25
Hosking, Ben T., & Bro.	25		
Hosmer & Fenn	100		

Jenkins, R. E.	25	Knight, Clarence R.	3
Jenkins, Sam R.	2	Knight, Wm. M.	50
Jenks, John G.	1	Knight, W. S., & Company	25
Jerrems, W. G.	100	Kohlsaas, C. C.	50
Johns, H. W., Mfg. Co.	25	Kreis, A.	1
Johnson Chair Company	100	Kreuger, J. L.	3
Johnson, Emma Irene	2	Kueken, A. W.	15
Johnson, H. A., Estate	10	Lacey, Maurice	5
Johnson, Dr. Frank S.	5	Lafin, George H.	100
Johnson, Dr. Frank S.	5	Lake Mich. & Lake Superior	
Johnson, James W.	10	Trans. Co.	50
Johnson, Oscar C.	1	Lake Shore & Mich. Southern	
Johnson, Peter, & Co.	50	Ry. Co., The	5000
Johnson, W. S.	25	Lambeau Leather Company	75
Jones A. B.	5	Lamson Bros. & Co.	100
Jones & Hacker	10	Lane, Francis B.	10
Jones, Harriet A.	25	Lang, Rosa A.	1
Jones, William	25	Lapp & Flershem	150
Josephi, Kate	1	Lathrop, Bryan	100
Juergens & Anderson	200	Law, Robert	250
Julius, Frank J.	1	Lawton, James S.	10
Kaestner, Charles	50	Lay, C. C.	25
Karpen, S., & Bros.	50	Lee, Charles W.	1
Kartheiser, John J.	1	Lee, W. H.	25
Katz, Charles A.	5	Leger, Edward & Son	50
Kedzie, J. H.	10	Lehman, John C.	1
Keep, Wm. B.	25	Leman, Francis E.	5
Keily, John J.	2	Leman, Henry W.	10
Kelsey, Horatio N.	3	Leman, Sheldon Dole	50
Kendall Mfg. Company	25	Leonard, Myron	2
Kennedy, Madison B.	5	Leonard, R. L.	10
Kenthan, Alice B.	1	Lepper, George A.	1
Kenthan, Isabella G.	1	Lerow, George L.	5
Kern, Harry W.	200	Leshner, William T.	5
Kessler, G. T.	25	Levi, Henry C.	250
Kimball, Eugene S.	25	Lewis, H. C.	2
Kimball, W. W., Co.	500	Lewis, H. L.	10
Kimball, Elizabeth J.	25	Lightner, M. C.	25
Kimbark, S. D.	100	Linden Glass Company	5
King Brothers	100	Lindsay, H. P.	2
King, Henry W., & Co.	500	Linkenheld, Charles	1
King, James C.	100	Lipman, A.	20
Kingsley, H. H.	1	Little, John S.	1
Kinney, Frank F.	5	Livingston, D.	2
Kinsey & Callman	50	Lloyd, Evan	100
Kips, Fred	1	Lobdell, Farwell & Co.	100
Kirchner, F. W.	2	Lobdell, H. H.	5
Kirk, James S. & Co.	500	Lochner, George	2
Klein, Mathias, & Son	10	Lockwood & Strickland	20
Klicka, Joseph	50	Lodge, 36, S. M. A. A. of N. A.	10
Knabe, William, & Company	100	Loeffel, J. C.	1
Kner, L. F.	1	Logan, F. G. & Co.	80

Lombard, Josiah L., and C. B. Sawyer	100	McCormick Harvesting Machine Co.	2000
Loomis, John H.	5	McDuffee, Andrew J.	10
Loomis, John Mason	100	McEwen, John	50
Lord, Louise M.	2	McFarland, J. C.	20
Lord & Thomas	50	McFarlin, W. W.	2
Lothholz, Richard	25	McIntosh Battery & Optical Co.	20
Lovejoy, J. W.	1	McIntyre, Allan	1
Lowenstein, Emanuel	10	McKay, John A.	5
Lowenstein, Sidney	10	McKeever, J. L.	10
Lukens, Herman, T.	5	McKinlock, Wm. H. and Geo. A., Trustees for Central Electric Co.	100
Lunt, Orrington	100	McLaughlin, W. F., & Co.	100
Lusky, Payn & Co.	40	McLenahan, M. B.	1
Lyman, David B.	10	McLennan, J. A.	100
Lyon & Healy	500	Mead, Harriet A.	10
Lyon, Thomas R., Ag't.	100	Mead Paper Company, The	100
Maas, J. Edward	1	Means, W. E.	1
MacGeagh, J. W.	5	Merchants Loan & Trust Co.	1500
Maclean, George A.	5	Merchants Nat'l Bank	1000
Magee, H. W.	10	Merriam, Collins & Co.	100
Magee, John J.	20	Merrick, L. C.	100
Mages, George C.	20	Metcalf, McDonald Company	50
Mallory, Son & Zimmerman Co.	20	Metropolitan Nat'l Bank	500
Malone, William	1	Middendorf, George W.	25
Mandioni, J.	1	Miller, E. W.	27
Manierre, Wm. R.	50	Miller, E. W.	1
Manson, William	25	Miller, James A., & Bro.	50
Marks, C. W.	200	Miller, James C.	2
Marsh & Bingham Co., The	50	Miller, John B.	5
Marsh, Erastus P., Receiver	20	Miller, John S.	10
Marshall, George E.	20	Mills, Harry J.	2
Marshall, George E., & Co.	50	Milmine, Bodman & Company	100
Marston, Augur & Tuttle	50	Milwaukee Harvester Company	100
Martin, George P.	10	Mitchell, Lucien C.	3
Mason Brothers	25	Moderwell, E. C.	10
Mason, E. G. & H. B., Executors	50	Moll, E., & Company	50
Mason, E. T., & Co.	25	Moore, John, & Company	30
Matchless Metal Polish Co., The	10	Moorehouse, W. H.	100
Mather, Peter L.	3	Morgan, C. H., Company	11
Mathews, George W.	20	Morgan, J. A.	3
Matlack, E. E.	1	Morrisson, Plummer & Company	250
Mattoon Mfg. Company	50	Moses, O. H.	1
Matteson, Joseph	25	Mueller, Chas. M.	1
Matthews, Wm. H.	5	Muir, John	5
Maurer, Cass F.	20	Munger, G. M., & Co.	100
Mayer, Ben. S.	1	Mussey, C. E., & Son	20
Mayer, R. H.	2	Nathanson, M.	1
McCagg, E. B.	25	National Bank of Illinois, The	850
McClurg, A. C., & Co.	200	National Linseed Oil Co. The	50
McClurg, W. Lowrie	3	National Malleable Castings Co.	150
McConnell Brothers	50		

Neeler, H. G.	1	Pairpoint Manufacturing Co. . .	50
Neimann & Weinhart Table Co., The	50	Palm, I. F.	5
Nelson Knitting Company . .	20	Palmer, Fuller & Company . .	100
Nelson, Walter C.	50	Parker, F. L.	2
Nelson, W. P. & Co.	50	Parks, W. R.	2
Nevers, Edward	10	Patton, E. A.	1
Newberry Warehouse & Stor- age Company	40	Payson, W. G.	2
Newburger, E. N.	2	Peabody, Houghteling & Co. .	250
Newell, Augustus	50	Peale, R. S.	300
Newhall, F., & Son	50	Pearson, D. K.	100
Newton, E. F.	15	Pearson Lumber Company, The .	10
Newton, F. A.	5	Pearsons & Taft	100
Newton, L. C.	10	Pease, Edward H.	10
Newton, P. A.	30	Peck, Annah B.	250
Newton, P. A., Jr.	40	Peck, Clarence I.	250
Niles, H. G., Jr.	1	Peck, Ferd W.	250
Nixon, Wm. W. K.	10	Peck Walter L.	250
Northam, J. V.	50	Peiser, Sam C.	5
Northern Trust Co., The . .	500	Pence, A. M.	10
Northwestern Lead & Oil Co. .	50	Pennoyer, J. C., & Co. . . .	25
"North Western Lumberman". .	50	Percival, F. W.	1
Northwestern National Bank .	500	Perine, J. W.	2
North Western Terra Cotta Co., The	200	Perkins, George W.	25
Norton Brothers	200	Pernod, P.	1
Norton, James S.	10	Perrin, William R., & Company .	10
Norton & Worthington . . .	100	Perry, A.	1
Noyes, L. W.	100	Perry, J. C.	2
Nye, James W.	10	Perry, W.	2
Oconto Company	100	Peters Trimming Company . .	25
O'Connor, Lilla	1	Peterson, Carl	1
Odell, B. F. J.	1	Peterson, Ing. F.	1
Office Specialty Mfg. Co. . .	136	Peterson, P. S.	20
Olbrich & Golbeck	25	Pettet, F. E.	25
Orelup, Amasa	11	Pettibone, Mulliken & Co. . .	50
Orr & Lockett Hdwre. Co. . .	100	Pettibone, Wells & Company . .	25
Orr, Robert M.	2	Pfeiffer, J. F.	2
Ortlieb, Jacob	25	Pflaum, Harry	5
Osborn, H. A.	10	Pflueger, Wm. F.	5
Osborne, M. C., Trustee . . .	5	Phoenix Ins. Company	150
Otis, F. R.	50	Philpot, B., & Co.	50
Otis, George L.	50	Pickands, Brown & Co. . . .	200
Otis, James	50	Pierce, C. W.	10
Otis, J. E.	50	Pierce, George H.	1
Ottofy, Louis	1	Pierce, H. A.	1
Ottofy, Mrs. Nellie F.	1	Pierce, L. A.	1
Overdier, H. D., & Co. . . .	20	Pike, Eugene S.	500
Overlock, F. F.	1	Pitkin & Brooks	250
Pabst, Herman	20	Plows, Edward	150
Page, William R.	50	Plummer, John T.	2
		Plummer, Joseph	1
		Poole Brothers	100
		Populorum, P.	25

Porter Bros. & Company	50	Rogers & Diamond	25
Porter, F. W.	5	Rogers, Georgiana	1
Porter, Washington	25	Rogers, Jos. M.	20
Postal Telegraph Cable Co.	500	Rose, Quinlan & Co.	20
Pratt, E. H.	25	Roseboom, W. L., & Co.	20
Prentice, L. H., Co.	50	Rosenbaum Brothers & Co.	50
Preston, E. B., & Company	100	Rosenberg, Jacob	100
Price Flavoring Extract Co.	100	Rosenfield Bros. & Co.	10
Prince, S. Fred	1	Rosenthal, B. J.	5
Purcell, John	1	Rosenthal, Herman	10
Purington, Kimball Brick Co.	50	Rosenwald & Weil	75
Quackenbos, Stella B.	5	Rothschild, Lew	5
Quinlan, J. J.	1	Rubber Paint Company	25
Randall, T. D.	50	Russell, Edward W.	50
Rand, McNally & Company	1000	Russell, P. A., & Co.	25
Ransom, E. S.	5	Ryan, D. W.	10
Rawson, C. L.	3	Ryan, John F.	10
Raynolds, James D., Trustee	10	Ryerson, Jos. T., & Son	200
Raynolds, James D.	30	Ryerson, Martin A.	1000
Raynolds, Julia B.	10	Ryerson, Martin, & Co.	50
Reagan, George Ellis	1	Sanford Mfg. Company	25
Ream, N. B.	500	Sanche, A.	1
Redfield, C. S.	10	Sanders, Edgar	1
Reid, F. T.	1	Sargent, Greenleaf & Brooks	25
Reid, Murdoch & Co.	1000	Sauer, Albert F.	5
Reid, William G.	1	Sawyer, C.B.(see Lombard, J.L.),	
Rendtorff, H.	20	Sawyer, Goodman & Company	100
Rew, Henry C.	100	Scammon, Mrs. J. Young	100
Reynolds, George B.	10	Scanlon, Thomas	40
Reynolds, William C.	100	Schaar, Koch & Company	50
Richards, Arch E.	2	Schaffner, W. S.	1
Richards, A. W.	1	Schaller & Stafford	50
Richards, Emily K.	2	Schaub Brothers	10
Richards, J. T.	5	Schilling, Adoph	1
Richards & Kelly Mfg. Co.	25	Schilling, Arthur	1
Richardson, O. W., & Co.	50	Schilling, Gretchen	1
Richardson Silk Company	50	Schilling, Henry	1
Richardson, Wm. D.	50	Schilling, Paul	1
Ridgway, Charles	2	Schimpfman, W. H.	250
Riley, H. B.	1	Schlesinger & Mayer	1500
Ritchie, W. C., & Company	50	Schmidt, George A.	25
Rittenhouse, M. F.	25	Schmitt, F. P.	25
Roberts, C. W.	1	Schneider, E., & Co.	250
Roberts, David B.	1	Schneider, George	50
Roberts, Hugh	1	Schroeder, H.	20
Robertson, Ada M.	2	Schultz, H. & Co.	50
Robertson, A. P.	10	Schuttler & Hotz	250
Robertson, R.	2	Schwennesen, H. P.	20
Robertson, W. A.	5	Schyke, Henry W.	2
Rockener, H. W.	10	Scully Syrup Co., D. B.	100
Rockwood, E. A.	2	Seaman Cox Brown Cooperage	
Rockwood, W. H., Jr.	1	Co.	50

Seaverns, George A.	500	Stanton & Company	100
Seipp, William C.	489	Stansbury, E. W.	1
Sharpe, C. A.	5	State Bank of Chicago	10
Shaw, William W.	1100	Stebbins, Henry S.	10
Shay, Maurice W.	2	Stebbins, Leonard C.	50
Sheldon, G. W., & Co.	50	Stebbins, S. I.	20
Sheriffs, John	20	Stecher, M. D.	5
Sheriffs, John, & Son	20	Steele, S. B.	3
Sherman & Flavin	50	Steele, Wedeles & Co.	50
Sherwood, Marc	25	Stern, Julius	4
Shirlaw, Hugh	5	Stevens, F. L.	25
Shoemaker, C. D.	2	Stevenson, D. M.	10
Siegel, Cooper & Co.	750	Stewart, Graeme	105
Silsbee, J. L.	5	Stiles, Josiah	25
Silverman, S. M.	5	Stillman, Anna	1
Simon, E. A.	1	Stinson, James	100
Singer & Talcott Stone Co.	105	Stockton, John L.	9
Sisson, H. A.	1	Stockton, John Thaw	10
Skinner, Herbert E.	1	Stockton, Joseph	45
Skinner, J. B., Treas.	100	Stoltze, William	25
Skinner, William, Mfg. Co.	50	Stone, J. D.	1
Slaughter, A. O. & Co.	100	Storrs, D. W.	10
Smith, Byron L.	250	Strasburger, E.	1
Smith, C. M.	5	Strauss, Ralph	5
Smith, Dunlap	25	Streeter Brothers	100
Smith, Ellen	1	Stubbs, James E.	10
Smith, F. J.	2	Studebaker Bros. Mfg. Co.	500
Smith, George E.	5	Sullivan, Louis H.	25
Smith, George T.	100	Sullivan, T. J.	1
Smith, George W.	25	Sweet, Wallach & Co.	30
Smith, Granger, Miller & Co.	25	Swift & Company	2000
Smith, L. M. & F. M.	25	Swift & Company	100
Smith, Orson	25	Switzer, E. M.	25
Smith, Percy H.	1	Taft, Lorado	10
Smith, R. J.	50	Talcott, William A.	10
Smith, R. P., Sons & Company	50	Tallman, L. C.	2
Smith, Shea, & Co.	25	Tanner, Louis A.	1
Snydacker, Godfrey	20	Taylor, C. W.	1
Solberg, Albert F.	2	Taylor, W. G.	5
Soper Lumber Co., The	100	Templeton, Thomas	25
South Branch Lumber Co.	100	Thacher, C. I.	10
Spaulding & Company	500	Thayer & Chandler	30
Spencer, Charles	1	Thoman, L. D.	10
Spencer & Macdonald	10	Thomas, James	5
Spencer, Robert	5	Thomasson & Dray	50
Spierling & Linden	10	Thompson, John F.	50
Spierling & Linden	20	Thompson, Slason, & Company	25
Spitz, H.	2	Thompson & Taylor Spice Company	200
Sprague, Warner & Co.	1000	Thorn, Frank	25
Squire, Homer A.	1	Thurston, F. W.	10
Stallwood, H. T.	5	Thurston, Wales B.	1
Stanley, H. P., & Co.	100		

Tidholm, August	10	Waller, William	50
Tilt, J. E., Shoe Company . . .	100	Wallin, C. C., & Sons	25
Title Guarantee & Trust Com- pany	100	Ward, Montgomery, & Co. . .	1000
Tonk, Max	10	Warder, Bushnell & Glessner Co., The	250
Tonk Mfg. Company	25	Wardner, Louise R.	1
Touzalin, C. H.	1	Washington Ice Company . . .	620
Tower, Arthur	1	Washington Park Club	1000
Treat, C. P.	100	Waterman, Richard	5
Tree, Lambert	100	Watry, N.	20
Trego, C. T.	50	Watson, Wm. J.	2
Trimingham, R. N.	5	Wayne & Low	50
Trumbull, L. & P.	25	Webber, C. M.	10
Tuley, M. F.	20	Webster, George	1
Turner, B. S.	5	Weinberger, A. F.	20
Udell, S. R., & Company . . .	10	Welling, J. C.	25
Ullrick, Walter,	5	Wells, Frank	5
Underwood & Company . . .	100	Wells, M. D., & Company . . .	1000
Union Ice Company.	40	Werner, P. E.	20
Union Stock Yd. & T. Co. . . .	3250	Western Electric Company . . .	250
Union Wire Mattress Co. . . .	50	Western News Company, The . .	50
United Indurated Fibre Co. . .	25	Western Planing and Mfg. Co. The	25
Upman, Frank	100	Western Wheel Works	100
Upman, Frank	100	Westervelt, John J. D.	5
Upman, Frank	50	Wheeler, Frank P.	2
Valentine, Alastair I.	5	Wheeler, Lloyd G.	10
Valentine, E. H.	25	Whitacre, Charles C.	5
Valentine, P. A.	50	White, Charles B.	20
Vallens, Eugene, & Co.	50	White, James H.	1
Van Bergen, W. F.	1	Whitfield, G. W.	5
Van Brocklin, W.	5	Whitfield, Thomas	50
Van Deursen, C. S.	10	Whitney, George B.	5
Van Deursen, M.	5	Whitney, John B.	5
Van Vlissingen, J. H., & Bro. .	25	Wichert, Henry	50
Veitch, Wilberforce	3	Wilcox, A. E.	5
Veseen, August	3	Wilcox, T. B.	2
Victor, H. P.	1	Wild, Theo.	5
Vierling, Clara J.	5	Wilder & Company	100
Vierling, Louis	50	Wiley, B. B.	1
Vierling, Robert	50	Wiley, E. M.	2
Wahl & Henius	10	Wiley, W. R.	10
Wait, Horatio L.	10	Willard, M. L.	10
Wait, Marshall	5	Willard, S. L.	3
Wakefield Rattan Company . .	100	Williams, Benezette	25
Walcott Hurlbut Co.	25	Williams, Nelson B.	10
Walker, Edwin	100	Williams, Norman	50
Walker, George C.	250	Williams, S. Lawrence	50
Walker, James R.	100	Willing, H. J.	200
Walker, S. L.	10	Willitts & Robbins	25
Walker & Wrenn	50	Wilson, George C.	50
Walker-Oakley Company . . .	225		

Wilson, Harlow S.	1	Wolff, L., Mfg. Company . . .	500
Wilson, Henry K.	1	Wood Brothers	100
Wilson, Joseph P.	1	Wood, William H.	15
Wilson, Maria J.	3	Woodbridge, John	15
Wilson, Marshall J.	3	Woodbridge, John, Jr.	10
Wilson, Paul C.	1	Woodcock, L. T.	5
Wilson, Walter H.	25	Woodnutt, Thomas W.	1
Winchell, Ann E.	3	World, Richard	10
Wing, Thomas W.	10	Wyman, Edward F.	5
Winslow, Bros. & Co., The . .	100	Yale & Towne Mfg. Company .	100
Winterbotham, J. H., & Son .	50	Yoe, L. G., & Co.	25
Wise, Abraham	10	Young & Farrell Diamond S. S.	
Witbeck, The H., Company . .	100	Co.	40
Witkowsky & Affeld	25	Young, H. L.	5
Wright, Charles J.	1	Young, Hugh	20
Wright & Meysenburg	200	Zeese, A., & Company	25
Wolf, H., & Co.	50	Ziegler, S.	5

FIELD COLUMBIAN MUSEUM

PUBLICATION 14

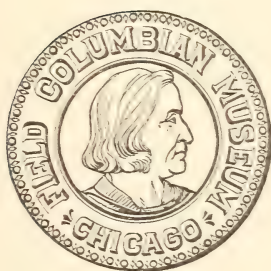
REPORT SERIES.

VOL. I, NO. 2.

ANNUAL REPORT OF THE DIRECTOR

TO THE
BOARD OF TRUSTEES

FOR THE YEAR 1895-96



CHICAGO, U. S. A.

October, 1896.

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THE BOARD OF TRUSTEES.

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DEPARTMENT OF ORNITHOLOGY.

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DIVISION OF PRINTING AND GRAPHIC ARTS.

THE LIBRARIAN IN CHARGE.

DIVISION OF MUSICAL INSTRUMENTS.

ASSISTANT CURATOR OF INDUSTRIAL ARTS IN CHARGE.

DEPARTMENT OF COLUMBUS MEMORIAL.

THE RECORDER IN CHARGE.

WILLIAM E. CURTIS, *Hon. Curator*.

THE LIBRARY.

E. L. BURCHARD, *Recorder and Librarian*.

ANNUAL REPORT OF THE DIRECTOR.

1895-1896.

To the Trustees and Members of Field Columbian Museum:

I have the honor to present a report of the operations of the Museum for the year closing September 30, 1896. The system of the Museum generally has been much improved during the past twelve months. Expenditures have been made more in the direction of classification than in re-installation; in working over old, rather than in purchasing new material, and in labeling, numbering and cataloguing specimens. While the work of the first year may be characterized as rushing and spasmodic, the labor of the second year has been even and steady. The number of department subordinates and clerks has been increased, but the pay roll of mechanics has been curtailed. Except in the lower ranks, there have been no changes in the personnel of the staff, and except as may be demanded by the further subdivisions of the departments, the Museum may be said, with respect to its salary roll, to be upon a permanent basis. Much of the crudeness of the original installation has disappeared during this year, producing greater harmony of method, and connecting divisions with closer regard for an intelligent and comprehensive scheme of installation. The great courts have been metamorphosed, not only providing requisite space for the growing collections of Archeology and Zoology, but substituting for an installation of the character of an exposition, an arrangement on museum lines. While the year has been a busy one, and the results satisfactory, yet considering the requirements, constantly growing in importance and increasing in number, the second year, like the first, seems to have demonstrated simply the necessity for still greater effort.

INCOME AND MAINTENANCE.—The Director's "income and maintenance" budget for the current year, estimated the income at \$71,576, and the expenses at \$101,220. These two estimates based upon those of the previous year, have naturally proven to have come nearer the actual figures than those of the first year, for which there was no precedent. But as the present budget provided for a sharp increase in the departmental force, the efforts made to bring the two sums

together have not been fully rewarded, as indeed was not expected, although a saving has been made in the budget, of \$14,530. By estimating the income and expenses of the four months to January 1st, the deficit for maintenance, it is found, will approximate \$15,000; *i. e.*, income \$72,250, expenditures \$86,690. It will be borne in mind in this connection, as was the case in the last report, that these figures do not include special cash donations, nor special appropriations, made by the Executive Committee, for material and permanent improvements.

THE MEMBERSHIPS.—Nominations for Annual Membership were made in very large numbers at the beginning of this year, and the total membership of this class now registered is 610. A large proportion of the old Annual Members are found upon this year's list, but the number of new names cannot be said to be very gratifying, although every effort has been made to secure an increased membership. Several Honorary Life Members have been elected by the Trustees: Mary D. Sturges, Harlow N. Higinbotham, George M. Pullman, and Edward E. Ayer. Frederick J. V. Skiff, Willard A. Smith and W. I. Buchanan have been elected Patrons.

LECTURE COURSE.—Two series of lectures have been given since the last Annual Report, most of them being illustrated with stereopticon views. The fourth course comprised nine lectures:

Oct. 5.—“Cats and the Lands they Inhabit.”*

D. G. Elliot, Curator of Zoology, Field Columbian Museum.

Oct. 12.—“Living Pictures of Invertebrate Animals.”

A. H. Cole, University of Chicago.

Oct. 19.—“Edible and Poisonous Mushrooms.”

C. F. Millspaugh, Curator of Botany, Field Columbian Museum.

Oct. 26.—“A Chapter in the Early History of Chicago.”

O. C. Farrington, Curator of Geology, Field Columbian Museum.

Nov. 2.—“Structure and Natural History of Sharks.”

O. P. Hay, Asst. Curator of Ichthyology, Field Columbian Museum.

Nov. 9.—“On the Origin of Coal.”

H. W. Nichols, Curator of Economic Geology, Field Columbian Museum.

*Repeated by request.

Nov. 16.—“The Ethnology of the Japanese.”

S. Choyo, Commissioner of Fine Arts, Imperial Japanese Commission, World's Columbian Exposition.

Nov. 23.—“Archeology and Episodes of Travel in Mexico.”

W. H. Holmes, Curator of Anthropology, Field Columbian Museum.

Nov. 30.—“Development of Architecture in Mexico.”

W. H. Holmes.

Fifth course, given during the months of March and April:

March 7.—“The History of Coins.”

Sigmund Krausz, Chicago.

March 14.—“Mining in the Middle Ages.”

H. W. Nichols, Curator of Economic Geology, Field Columbian Museum.

March 21.—“The Oldest Known Bird.”

O. P. Hay, Assistant Curator of Ichthyology, Field Columbian Museum.

March 28.—“How Plants Travel.”

C. F. Millspaugh, Curator of Botany, Field Columbian Museum.

April 4.—“Masterpieces of Aboriginal American Art.”

W. H. Holmes, Curator of Anthropology, Field Columbian Museum.

April 11.—“The Evolution of Transportation.”

Willard A. Smith, Chicago.

April 11.—“The Illustration of Books.”

Edward L. Burchard, Librarian, Field Columbian Museum.

April 25.—“Caricature.”

John H. Finley, President Knox College.

The audiences vary greatly according to the weather, the approach to the Museum being at times so disagreeable, on account of wind or dust storms, as to prevent many from venturing out, but all things being taken into consideration, the attendance has been gratifying. The time for the lectures seems to be suitable, viz.: Saturday afternoon, at 3 o'clock, as probably a larger number of persons can conveniently attend then. A new set of lenses has been provided for the stereopticon, enabling the instrument to be placed at the rear

of the hall, where it does not obstruct the view. The Recorder now has on hand, classified by lectures, 634 slides, as follows:—

		Number of illus- trated lectures.	Whole number of lectures.
Anthropology	108 slides	3	7
Botany,	138 "	4	6
Geology,	122 "	4	12
Industrial Arts,	64 "	2	2
Library,	52 "	1	1
Zoology,	150 "	5	8

PUBLICATIONS.—The series of publications established in October, 1894, have been continued, and numbers have appeared at comparatively regular intervals. Below will be found the titles of those issued since October first last, with the number of pages and illustrations.

- Pub. 5.—Zool. Ser., Vol. 1, No. 1. On the Structure and Development of the Vertebral Column of *Amia*. By O. P. Hay. 54 pages, edition 1,000, three lithographs in three colors, anatomical sections.
- Pub. 6.—Rep. Ser., Vol. 1, No. 1. Annual Report of the Director, 79 pages, edition 3,000, no illustrations.
- Pub. 7.—Zool. Ser., Vol. 1, No. 2. On Certain Portions of the Skeleton of the *Protostega Gigas*. By O. P. Hay. 8 pages, edition 1,000, two illustrations (one half tone and one zinc etching).
- Pub. 8.—Anthropol. Ser., Vol. 1, No. 1, Pt. 1. Archeological Studies Among the Ancient Cities of Mexico. By W. H. Holmes. 137 pages, edition 1,250 of usual size and 200 copies edition de luxe, sixty-two illustrations (fourteen half tones and forty-eight zinc etchings).
- Pub. 9.—Bot. Ser., Vol. 1, No. 2. The Flora of West Virginia. By C. F. Millspaugh and L. W. Nuttall. 209 pages, edition 1,000, two illustrations (one half tone and one zinc etching).
- Pub. 10.—Ornith. Ser., Vol. 1, No. 1. Contribution to the Ornithology of San Domingo. By G. K. Cherrie. 26 pages, edition 1,000, no illustrations.
- Pub. 11.—Zool. Ser., Vol. 1, No. 3. On Sundry Collections of Mammals received by the Field Columbian Museum. By D. G. Elliot. 17 pages, edition 1,000, ten plates of illustrations (half tones).

Pub. 12.—Zool. Ser., Vol. 1, No. 4. On Some Collections of Fishes.
By O. P. Hay. 16 pages (Combined with No. 13).

Pub. 13.—Zool. Ser., Vol. 1, No. 5. On the Skeleton of *Toxochelys Latiremis*. By O. P. Hay. 8 pages, edition 1,000,
two illustrations (zinc etchings). (Combined with No. 12.)

A fourth edition of the Guide (2,000 copies) was issued in August. As a third edition of the Guide was issued in March, 1895, the year that had elapsed saw unusual changes in installation; consequently the fourth edition of the Guide had to be almost entirely re-written.

In regard to the distribution of the publications, the table below shows the number and classes of foreign and domestic addresses. A comparison is also made with the number distributed last year;

OFFICIAL:	DOMESTIC.		FOREIGN.	
	1894-95	1895-96	1894-95	1895-96
Trustees	15	14	....	....
Staff	13	15	....	....
Corporate Members	56	53	....	....
Honorary Members . . . . .	....	3	....	....
Annual Members	723	757	....	....
GENERAL ADDRESSES:*				
Museums	16	5	58	42
Scientific Societies	62	37	43	45
Academies and Institutes . . . . .	....	....	15	15
Universities, Schools and Colleges	67	56	9	31
Libraries	122	62	2	28
Journals . . . . .	....	11	9	20
ADDRESSES IN SPECIAL SCIENCES:				
Anthropology	21	128	13	81
Botany	81	123	40	53
Geology	114	150	110	115
History	20	56	....	....
Industrial Arts	37	31	4	3
Ornithology . . . . .	....	19	....	12
Zoology	16	93	23	68
Total Addresses:	1,363	1,613	326	512

The distribution to foreign countries is accomplished through the Bureau of International Exchanges of the Smithsonian Institution. In addition to the printed requests for exchanges transmitted with the Museum literature, about 350 personal letters have been

* Museums, Societies, Academies, etc., devoted to one science are classified in the next section with special sciences.

prepared and sent out requesting exchanges of particular publications. Responses have always been courteous and in nearly all instances favorable, so that the reading room of the Library is now assured of a permanent and valuable series of current periodicals, such as transactions, memoirs, journals, proceedings, etc., of the principal publishing scientific bodies of the world.

LIBRARY.—During the fiscal year there have been added to the Library 687 bound volumes and 1,148 pamphlets and unbound volumes, making a total of 1,835 titles. This compares very favorably with the growth of the Library for the preceding years, although the total number added in 1894-95 was 2,411, and in 1893-94, the opening year of the Library, 7,139, but both these years saw the acquisition of several large collections. The number of donations has materially increased; attributable, of course, to the rapidly growing exchange list of the Museum. A list of the accessions to the Library accompanies this report. The number of accessions would indicate the present size of the Library were it not for the fact that two collections of engineering and railroad literature which were loaned to the Museum, have been returned to their owners. Subtracting these collections from the total, gives 10,635 titles at present in the Library, not including some 3,000 pamphlets bound in cheap bindings. The Museum is also in constructive possession of the ornithological library of Mr. Edward E. Ayer, consisting of about 400 valuable works, which he has recently presented to the Museum and which will be added to the catalogue this winter. In order that the staff of the Museum might avail itself in the most convenient manner of the scientific literature on the shelves of other Chicago libraries, co-operative arrangements have been made as far as possible with those libraries by which their books can be used at the Museum. The Chicago Public Library allows its reference or other works to be drawn out upon the requisition of the Museum Librarian and delivers them at a neighboring Delivery and Reading Station. The John Crerar Library promises a duplicate printed copy of its card catalogue and has indicated its willingness to buy scientific literature specially desired by the Museum. The University of Chicago Library has been extensively used by the staff of the Museum, and many courtesies have been extended and future facilities promised. The three largest scientific libraries of the city are thus in effective co-operation with the Museum. The Library, young as it is, cannot, of course, pretend to have a full quota even of the necessary books, and the fact needs to be emphasized that special literature, descriptive of scientific species

and collections, and of geographic regions or sources of specimen supply, as well as the most modern manuals are the most important permanent accessories to specimens themselves, and are indispensable for reference, to a progressive working staff. The Curators complain that they are unable to do the careful scientific work required of them owing to the fact that the effective descriptive literary tools are not provided. Although, as far as possible resources of other Libraries are being drawn upon, it yet remains to be said that each department of the Museum needs a still larger complement of specialized scientific books for constant reference. As the routine work of the Library is being performed by one assistant, the large amount of cataloguing to be done progresses slowly. A type-written card catalogue shelf-list is kept up to date and arranged by subjects so that the resources of the Library on any specific subject can be given. A carefully studied subject catalogue, which will give cross references to the minor matter in collective books, has already been begun. The author catalogue, comprising some 12,000 titles, has been completed and is in use. All of the literature on the shelves of the Library and belonging to the Museum, has been stamped with the Library seal. Twenty-eight periodicals which would otherwise have been subscribed for are now received regularly in exchange. The number of periodicals subscribed for is 47. The total number of books in the Department Libraries is as follows: Department of Geology, 1,190 and 1,100 pamphlets. Department of Ornithology, 368. Department of Botany, 163. Department of Zoology, 169. Department of Anthropology, 88. Total deposited in Departments—Books and pamphlets, 3,078. No record of the use of these books is kept by the Librarian.

RECORDS.—The accession catalogues have been carried on as described in the Report of last year, with the exception that two new books have been opened, one for the Department of Monographic Collections, the other for the Section of Photography. Great inconvenience was caused by the lack of catalogues accompanying the collections received at the inception of the Museum. At present for each new accession either catalogues are obtained from the sender or the Curators prepare catalogues of the material upon receipt. These are then filed and jacketed for future use. The total number of such descriptive papers, letters, documents, etc., now in the Recorder's files reaches 9,426. Each paper filed receives its individual number, and cannot be withdrawn from the Recorder's office without written receipt. The Recorder, who acts as Custom House Agent for the Museum, has cleared through the Custom House about 30

consignments of material from foreign ports. In this connection, acknowledgment should be made to the Foreign Office of Messrs. Marshall Field & Company for continued and courteous assistance.

DEPARTMENTAL CATALOGUE, INVENTORY AND LABELING.—The cataloguing of specimens in the Department Inventories is progressing rapidly, and in some Departments has been completed. In the Department of Anthropology, the numbering, cataloguing and labeling of the collections has been interrupted during the year by other more essential work, but large numbers of specimens have been identified and catalogued, the card system being used in the preliminary work as a matter of convenience. Much advance has been made in the work of labeling, attention having first been given to general descriptive, group, and case labels. A most important feature of this work is being carried out in the Egyptian Section, where Mr. J. H. Breasted, Egyptologist of the Chicago University, is engaged in translating the numerous hieroglyphic texts of papyri, grave tablets, scarabs, mummies, etc. The results will first be applied to the writing of detailed labels for the collections, and afterward to the preparation of a guide. The appointment of George A. Dorsey of Cambridge as Assistant Curator in Charge of Physical Anthropology, has made it possible to proceed with the work of identifying and cataloguing the material in this important division. The Department of Botany has all records of material completed and all specimens numbered and labeled. This not only applies to the case specimens, but also to those stored away as duplicates. Specific classification is far from complete, however, and descriptive label writing is only begun. The Curator of Geology has catalogued the entire paleontological collection, and new material is now disposed of upon arrival. The work of replacing the temporary by printed descriptive labels has been carried forward as opportunity permitted, and enough has been done in this direction to add largely to the popular interest in the material. In Economic Geology, the year has been marked by the most patient and steady devotion to cataloguing and labeling. As a result, the records of the Department are in excellent condition, and descriptive labels have been attached to specimens so generally that the Department is assuming a finished appearance. In addition to the labels on individual specimens, large labels have been provided for each class. The work in the Department of Zoology, except Ornithology, has not been active, owing to the absence of its Curator in Africa, but gratifying headway has been made in cataloguing. A large number of descriptive framed labels have been provided for Halls 19 and 20 and for

the mammals in the West Court, and the purchasing lists of three large shell collections have been compared with the material and corrected preparatory to inventory. The entire collection in the Department of Ornithology has been catalogued, something over 1,000 skins having been recorded quite recently. Labels have been written for all the mounted birds. The Department of Industrial Arts has finished its card catalogue and Inventory, and reports that only a very few labels are lacking. Owing to the demands of his regular duties, the Recorder who has charge of the Department of Columbus Memorial, has done little in Memorial Hall this year except to replace new for old labels. The catalogue was completed in 1895. The important work to be done is the numbering of the pictures to correspond with the original Exposition inventory. When all the material is identified and numbered correctly, it will be possible to print a hand-book to the collection, the manuscript of which is now in possession of the Museum, and which would add greatly to interest in the collection.

The year's work in the Museum on catalogues and inventories is shown in detail:

	No. of Record Books.	Total No. of entries to Oct. 1, 1896.	Entries between 1895-6.	Total No. of Cards Written.
Anthropology,	11	9,089	9,089	13,200
Botany,	10	11,949	9,000	1,000
Geology,	7	13,185	5,312	6,000
History,	2	1,514	—completed—	
Industrial Arts, . . .	8	13,600	100	860
Monographic Col., .	2	202	202	
Zoology,	8	6,339	6,339	4,345
Library,	3	9,551	1,835	12,000
Section of Photog.,	1	997	997	

ACCESSIONS.—The accessions of material by gift, purchase and expedition have been large and valuable, and seem to have been rather evenly distributed among the different Departments, if the prevailing flattering estimate of the results of the African expedition be included. It is obviously impossible to discuss all of the many accessions, but some seem to demand a reference beyond the simple record. A number of noteworthy additions have been made to the Department of Anthropology. Special attention may be directed to the collections of Eskimo material brought from Northern Alaska by Miner W. Bruce. These include valuable fur costumes, implements and utensils pertaining to the native arts and industries, and many carvings in bone and ivory. It is expected that these will be utilized to some extent in setting up a group of figures illustrating the Alaskan

Eskimo. Students of the ancient peoples and arts of America will look with particular interest on certain acquisitions from Yucatan, and some examples of sculpture from the Valley of Mexico give an excellent idea of the achievements of the native races in this line. South America has yielded but little directly, although collections returned to the Museum from the Peabody Museum of Cambridge add greatly to the wealth of material from Peru and other Pacific Coast countries. The culture of the ancient Romans, already so well represented both by reproductions and original works, is further illustrated by a group of bronze objects of surpassing interest, recently obtained from a villa near Pompeii. The most remarkable of these objects are two bronze bath-tubs and a bronze table with circular top supported by legs imitating those of the lion. Among the most notable additions to the Egyptian collections is the magnificent series of stoneware, ranging in date from 3,000 years before Christ to a late period. The bronze sistrum presented by Dr. Keeley is a large and perfect specimen, and its inscriptions are of the greatest interest, showing it to have been used in the Temple of Ammon at Thebes. Among numerous other bronzes, a large statue of Osiris is worthy of special mention. A series of grave tablets and tombstones includes two large fragments of tomb tablet reliefs of exquisite workmanship, similar to pieces recently acquired and published by the Berlin Museum. A fine series of faience or blue glaze mortuary figurines is of interest, but is exceeded in importance by the coiled serpents in the same material, one of which is remarkable for size and color. Among the stone statues is a noticeable figure of Apet, executed in black basalt. From Asia the Department has secured three valuable marble images representing Buddhistic divinities. Many specimens from the mounds of the Mississippi River and the ancient copper mining district of upper Michigan collected by the Curator of the Department have been added to the archeological division. The Division of Physical Anthropology especially has been enriched by materials selected from collections now brought together for the first time, although in possession of the Museum before the current year. One collection made by D. Scott Moncrieff for the Columbian Exposition, consisted of four skeletons, several crania and an original burial package, containing three adult women and one girl, all in desiccated condition. As to this package, although the funeral garments are of European origin, the date of burial is probably about 1845, as with the bodies were a large quantity of the "Log-cabin" medals of the "Tippecanoe and Tyler too" campaign of 1840. The bodies, otherwise, were note-

worthy only for the pendant ear ornaments of coins, brass bells and dentalium shells. In the mouth of one individual were found twenty brass buttons. The acquisition of eight skeletons and several crania for the Division of Physical Anthropology is timely, for with this added material, the Department now possesses a fairly complete osteological collection of North-West Indians, the tribes well represented being: Kwakiutl, Salish, Songish, Kawitchin, Catlalty and Chinook. The Mound material from Ross County, Ohio, returned from study at Cambridge by the Chief of the Department of Anthropology of the Columbian Exposition, has been placed on view by the Museum this year. There were three notable and celebrated "finds" in Ohio Mounds: (a) that of Squier and Davis of two hundred carved effigy pipes at Mound City; (b) that of Professor Putnam of Cambridge of seven altars, each covered with countless objects of adornment and ceremony, at the Turner Group; and (c) that of Mr. Moorehead at the Hopewell Group. In the amount and beauty of symbolic carvings in copper, in the quantity of copper implements, in the number of bone carvings in which conventionalism and realism are blended in a most striking and artistic manner, and in the cache of unfinished implements numbering over 7,000, this collection far surpasses any hitherto made in the Mississippi Valley. There are also two valuable collections from Fort Ancient and Oregonia, Ohio. These are remarkable for the large number of skeletons which were in a good state of preservation. Among other material, new so far as its exhibition is concerned, are the collections made by G. A. Dorsey in 1892 in Peru, four of which should be specially mentioned: From La Plata Island, Ecuador, consisting of (a) fragments of ceremonial pottery and images from the summit of the Island, made by coast tribes of Ecuador, who resorted to the Island for centuries as a place of worship and ceremony; (b) contents of three graves near the beach, including gold and silver images and pins, beautiful pottery, and a remarkable ceremonial stone-axe. These objects are Peruvian in origin and their presence on the Island is to be explained by the fact that Ecuador was conquered and over-run by Incas of Peru shortly before the Spanish conquest; (c) from Santa Valley about 500 pieces of pottery of exquisite workmanship, and, taken collectively, portraying in a vivid manner the physiognomy, religion, industries, houses, and foods of the people; besides ceremonial sceptres and bone carvings inlaid with turquoise; (d) from Ancon, the contents of 125 graves, showing every form of burial and the complete life of individuals of both sexes, of all ages and of varying degrees of wealth. From the notes and labels of the collector each grave can

be reconstructed. From the osteological material of the Ancon exploration it is possible to make a full and complete investigation of the physical characteristics, so far as the skeleton is concerned, of the ancient inhabitants of this Necropolis. The most important Herbarium accessions to the Botanical Department this year, are the plants of the Gaumer collection purchased by the Museum, and the Mexican plants donated by Mr. Ryerson. The former are particularly valuable, as they maintain this special field for the Museum, and yield a large percentage of species entirely new to science. Mrs. Snyder has continued her enthusiastic interest in the welfare of this Department during the past year by additional contributions of plants collected by herself in the Californian region. Mr. Nuttall, of West Virginia, who co-operated with the Botanical Department in the preparation of its publication on the Flora of West Virginia, has exhibited his interest in the work of the Museum by sending specimens illustrating the flora of that state. Special significance should also be attached to the valuable material collected by the Curator as a beginning of the contemplated North American Forestry Collection. In this work a good start has been made, and much work outlined for the next collecting season. The Department of Geology has obtained a large collection of fossils illustrating the fauna of the Chicago beds during the Niagara period. This includes over five hundred specimens representing at least one hundred distinct species, many of them rare, and two as yet undescribed. These were gathered during a series of years by the late Dr. Kennicott, and include many of the best specimens so far obtained from the Bridgeport and Hawthorne localities. Other important accessions to the paleontological collection are a series of about sixty species of tertiary leaves from the Denver beds of South Table Mountain and Golden, Colorado; twenty species of Devonian plants from the Fern Ledges of St. John, N. B.; one hundred specimens of the Cretaceous fossils of Texas representing twenty distinct species; and a *Placenticeras* from Montana, nearly two feet in diameter, with sutures beautifully preserved. A relief map of France, four feet in diameter, a relief map of Northwestern Illinois and a series of seven relief maps of the continents and the world, are important additions to the geographic material already exhibited. To the mineral collection have been added a number of the rarer minerals of Mexico, such as Guanajuatite, Livingstonite, Bustanite, etc., obtained by exchange with the Mexican National School of Engineering, and some showy specimens of the better known minerals collected by the Curator of Geology. A series of remarkable Joplin,

Mo., calcite crystals, the crystals being six inches in length, nearly transparent and showing faces of two scalenohedrons in great perfection, are also valuable additions. The Meteorite Hall has received by exchange specimens of falls not heretofore represented. One of the most interesting accessions to the metallurgical collections is the series of specimens illustrating the toughening of cast iron, rendering it, to an extent, malleable. The Chief of the Division of Mineral Resources of the United States Geological Survey, Dr. David T. Day, who was in charge of the Mining Department at the Atlanta Exposition, remembered the Museum at the close of that event by sending an interesting series of nickel, magnesite and gold ores from Canada, South Carolina and California. A specimen of Crocidolite from Cape Town, South Africa, was donated by Mr. W. J. Chalmers. A specimen of Albertite from Utah, from W. H. Holmes represents a valuable mineral in a new locality. But by far the most important addition to the Economic Collections are the ores from Curator Farrington's Mexican Expedition. The silver ores are so numerous as to compel a complete rearrangement of the present collections of silver ores, which now represent all phases of the occurrence of silver in Mexico. There were secured interesting iron ores from the well-known Iron Mountain of Durango and examples of the little known tin and mercury deposits of Mexico. The Department of Zoology, except Ornithology, which in extent and character of material did not at the beginning rank with the other Departments of the Museum, has been brought to a higher standard of completeness during the past year by extensive acquisitions in all of its several divisions. Not so much attention has been devoted to the lower as to the higher invertebrates. The Aldis expedition to Florida brought in a quantity of sponges, crabs and molluscan forms. Mr. Allison V. Armour, of Chicago, has contributed a collection of 5,000 insects from Yucatan, gathered by Mr. Thompson. By the gift of Mr. Martin A. Ryerson, of Chicago, the Museum came into the possession of a superb collection of 700 lepidoptera from India. The molluscan collections have been considerably worked over and revised, and additions have been made where needed. In Ichthyology should be mentioned the gift of the National Museum of 105 species of fishes, and several gifts of reptiles are to be noted, including that of a boa constrictor presented by the Ringling Brothers. The efforts of the Department have been concentrated principally upon enlarging and upbuilding the mammalian collection. To this end, as previously stated, an expedition was sent to Africa, and large acquisitions are expected on the return of Curator Elliot.

Extensive purchases had previously been made of mammal skins and skulls representing principally the antelopes, monkeys and the felines. Purchases were also made of small mammals from California, the Price collection, which has since been described in a Museum Memoir by the Curator of the Department. Other countries, including Siberia, Africa, Japan and the West Indies, have contributed of their fauna to this division, while the gift of a fine giraffe by Ringling Brothers was a valuable donation. The collections in Ornithology have been increased very considerably during the past year, especially by the acquisition of valuable North American species. Some 230 species, chiefly from the vicinity about Chicago, have been added by the staff of the Department, and will be useful to the student of local fauna. The study collection has been further increased by about 1,500 specimens, representing thoroughly the birds of Cook County, Illinois, and also, in a lesser degree, the birds of the north coast of Texas. Collections gathered during the previous season are now in the hands of the Curator for study and preparation. Notable progress has been made, particularly in two sections of the Department of Industrial Arts—the textile and the ceramic. The ceramic room has been enriched by several purchases of old china gathered by the Museum's representative in the East, Mr. E. A. Barber, and illustrating the ware and art of the colonial period. From the same source has come a set of Wedgewood cameos and other art specimens. There has also been installed a loan collection of vases and ware from Mrs. Schimmelpfeng, of Chicago. French faience plates of considerable historical value were donated by Mr. Hawkins, of New Orleans, and by Mrs. Keeley a set of Rhoda and Damascus plates. To the series of machines and looms in the section of textiles has been added a fabric glove machine and an old hosiery loom. These were secured through the courtesy of Messrs. Marshall Field & Company, at Chemnitz, and were by gift from prominent manufacturers of that city. An interesting collection of Roman plaid textiles, mounted, was contributed by Mr. Henry H. Getty, who obtained them during his travels in Italy. Another attractive gift is that of 104 specimens of mounted laces, velvets and brocades, presented by Jesurum & Co., of Venice. By purchase has been acquired a collection of 500 mounted specimens of similar material, collected by Mr. Ayer while abroad. To fill out this section specimens of mummy cloths and primitive textiles have been transferred from the Department of Anthropology. Numismatics has grown steadily, the periods represented being from the beginning of the Christian era to a recent date. A set of fragments, supposed to be

copper coins, have been added to this section by gift of Mr. Ryerson. Among other additions to Higinbotham Hall may be specially mentioned antique snuff-boxes, a series of crystallized gold specimens, and gold jewelry from Egypt, while a large collection of gold ornaments from the United States of Colombia and silver ornaments from Bulgaria have been transferred from the Department of Anthropology. Mr. Cyrus H. McCormick presented to the Agricultural Implement section a set of Arabian plows and yoke plows, and seed-sowers from Palestine. In the section of Leathers a complete collection, illustrating the art of tanning, has been obtained of Tiffany & Company. In the division of Transportation may be noted, among the principal contributions, a large ancient cedar boat discovered in Egypt and presented to the Museum by Mrs. C. H. McCormick. A number of minor relics have been deposited in the Museum by Chicago gentlemen.

A detailed list of accessions and acknowledgments is presented elsewhere.

EXCHANGES.—One of the most profitable and satisfactory means of obtaining new material is by exchange. A large amount of duplicate material is in the possession of the Museum, especially in Economic Geology, Botany, and in several divisions of Anthropology and Zoology. Very gratifying arrangements have already been made with contemporaneous institutions by the Curators of Economic Geology and of Botany, and a number of desirable exchanges effected. During the year, all the duplicate material has been listed by Departments. This list will be published and sent to all institutions and individuals, collectors, etc., soliciting correspondence on the subject of the exchange of duplicates. The lists will probably be issued in December.

EXPEDITIONS AND FIELD WORK.—The most important expedition this year has been the commission to Africa, of D. G. Elliot, Curator of the Department of Zoology, except Ornithology. He was accompanied by C. E. Akeley, Chief Taxidermist of the Museum, and by Mr. Dodson of London who was with the Lake Rudolph expedition of Donaldson Smith. The departure from London was made March 27th, Aden was reached April 14th, and Berbera April 21st. At this latter point the caravan was organized, consisting of about 60 native guides, hunters and porters, with seventy-five camels and ponies. Start was made from Berbera April 30th, and at the time of the last written report, August 9th, the party was at Higlileh, Ogaden, proceeding toward Tug Turfa and toward Eur River, Long. 42.12 and Lat. 7.50. This is in the Galla country.

They expected then to go on to San Moretta, Long. 42.25 and Lat. 6.50—the giraffe country. A cable dated September 29th, reported the party safely at Aden on their return with a splendid collection. There can be no doubt that if the material reaches the Museum in good condition, the results will exceed all expectations. No detailed information as to the number or variety of skins obtained has been received. But that the quantity is ample may be gathered from Mr. Elliot's statement in June that it seemed "simply a question of transportation." The expedition has attracted a great deal of attention, and both the official and scientific reports and the popular narrative of its chief will be awaited with much interest. He will reach Chicago about December 1st, remaining probably in London several weeks to work over the material and identify species. C. F. Millspaugh, Curator of the Department of Botany, began his work this year on the Forestry of the Mississippi Valley. His work so far has been confined to the State of Mississippi and Southern Illinois, procuring photographs from species in leaf, timber specimens from the living trees, and leafing and flowering branches from the same individual. The trip will be repeated over the same territory this winter for trunk specimens, planks, boards and fruits. When this work is completed, as provided by the appropriation, the Museum will possess a very valuable collection of the timber-producing trees of the country, that, added to its foreign material, will constitute a notable forestry collection. The officials of the Illinois Central Railway are lending every possible aid. The work of the Department on the Flora of Yucatan commenced by the Curator in the winter of 1894-95 is being continued, in the field under instructions, by G. F. Gaumer, a resident of that State, and two consignments of very interesting and valuable plants have already been received. The Curator of Geology went on expedition to the Republic of Mexico in the winter of 1895-96. It was fruitful in results. The object of the trip was to obtain specimens illustrating volcanic and glacial phenomena, and the economic deposits. The expedition was largely made possible through the courtesy of the officials of the Mexican Central and A. T. & S. F. Railways. The Curator made a complete ascent of Popocatepetl and explored the crater and ascended Ixtaccihuatl far enough to permit a study of its glacier. A great many mineral specimens and ores were obtained and exchanges of material arranged for with institutions and individuals, resulting finally in the possession of an excellent representation of the minerals and ores of the Republic. Professor Farrington has prepared several lectures for the Museum course based on this expe-

dition that will be illustrated from photographs taken on the trip. In the past winter, G. K. Cherrie, Assistant Curator of Ornithology, spent three months collecting bird skins along the Gulf Coast between New Orleans and Corpus Christi, Texas. Nearly one thousand skins were added to the North American division of this Department. Mr. Cherrie has also made a number of excursions in the vicinity of Chicago collecting local material. Miner W. Bruce arrived May 7th from Alaska after nearly two years absence, with a collection of 1,200 or more specimens illustrating the arts and industries of the Eskimo of Alaska. He has returned again to the North with a commission to add further material and to extend his work into Siberia. During the past year, E. H. Thompson became associated with the Department of Anthropology and was assigned to work in Mexico. He has made a report on the recently examined ruins of Xkichmook, accompanied by specimens and photographs. He is now studying and mapping the ruins of Chichen-Itza, concluding which he will make investigations among the Mayas. President Ayer passed the winter in Egypt adding much valuable material to the archeologic collections from that country. He also secured numerous articles in bronze and glass from Italy, representing the culture of the ancient Romans. Vice-President Ryerson and Mr. C. L. Hutchinson, on their trip around the world, procured and presented to the Museum a large and unique amount of material, including Etruscan and Stone Age remains from Italy, Roman terra cottas, metal and stone work from the Indies, and butterflies from the Himalayas. Mr. Owen F. Aldis invited O. P. Hay, Assistant Curator of Ichthyology to accompany him on an excursion to the waters of Southern Florida. Nearly one hundred fine specimens were obtained, several of which, including a splendid tarpon, have been mounted. This contribution to the material of this division of Zoology has added much to the appearance of Hall 22.

INSTALLATION, RE-ARRANGEMENT AND PERMANENT IMPROVEMENTS.—

Estimated by its cost, the largest amount of material improvement has been made on the Building itself. By order of the Executive Committee, experts were secured to make recommendations that as far as possible would insure the safety and stability of the Building for at least five years. Acting upon these reports, the Executive Committee appointed a sub-committee, consisting of Mr. Owen F. Aldis and the Director to execute the recommendations of these experts, modified in such directions as the judgment of this sub-committee might dictate. The repairs to the Building consisted in tinning and painting the roof, strengthening the main floor, putting in

an entirely new roof-drainage system, removing the ornamentation on the exterior of the Building, securing in place such plaster accessories as seemed in danger of displacement, and re-plastering and patching the exterior, closing the unused entrances with iron railing, cleaning and repainting all of the structural iron work of the Building and putting iron guards at all of the windows. With the exception of the tinning and the plastering, the work was performed by contract, within an appropriation of \$15,000. The Building is as nearly perfect in condition now, as it appears possible to make it, and while the plaster work will be a continual source of annoyance and expense, yet it can be cared for with the force at the disposal of the Museum unless during the coming winter there is such displacement as to require additional labor. This can only be determined by the results as they transpire. It is estimated that unless something unforeseen arises, the Building can be maintained in its present physical condition for five years with the regular force of the Museum, and possibly the expenditure of \$3,000 per annum. Improvements in the steam heating plant have been extensive. An independent line of steam pipe has been constructed to the East Annex that will enable heat to be forced into the extreme East end of the Building, without the necessity of adding to the temperature of the system of the main Building, through which system steam has been heretofore conveyed to the East Annex. Water and steam pipes have also been laid to the new workshop; to the Division of Physical Anthropology; to Photography and other parts of the Building, as the establishment of new offices, laboratories and working rooms have demanded. The disadvantage of having the general workshop and taxidermy rooms of the Museum located in the warehouse at Fifty-Sixth street and Jefferson avenue, became so apparent, that by consent of the South Park Commissioners, an independent brick building accommodating workshops, laboratory and taxidermic rooms, has been constructed to the North of the East Main entrance of the Building. It is almost concealed from view, and at the same time gives ample room for work, and its proximity to the Museum itself simplifies and systematizes the work. A special vault was built for the skin vats of the taxidermists; the rooms all have sky-lights, and are fire-proof. The location of the carpenter shop and paint shop in this addition will enable workmen to take small jobs to the shop and prevent a great deal of annoyance, noise and litter created by carrying on such work in the Museum, while the Curators of Zoology or Ornithology are in quick communication with their taxidermists. During the past year a local telephone system has been established in the Building, giving prompt

and easy method of communication between the different divisions and offices of the Museum. It has been found of the greatest utility and economy. The Columbus caravels have been removed from the South Chicago Ship Yards to the Main Basin in Jackson Park, and secured to place and made ready for the rough weather of the winter. The Viking Ship was about to be removed to the Basin, but by order of the Executive Committee, the plan was changed and the ship was housed at the East of the Museum, as was the case the year before. Several improvements have been made in the printing office, in the photographic section, and in the poisoning division; new fixtures, furniture, appliances and accessories provided in each case, and the scope for work improved as the demands for its performance increased. The printing office now prints the mailing list, and all addresses on publications are attached by a mailing machine. The poisoning force is doing effective work in all departments of the Museum where such services are required, and has been attached during the past year to the Superintendent's jurisdiction. The presence of moths, wood worms and dermestids in all parts of the Museum has necessitated the greatest watchfulness and activity. The pests are now under control, although the work is continued everywhere unremittingly. A careful study of poisons, and advice, by correspondence, from other institutions, has added much valuable information as to the best methods to pursue and the most effective poisons to employ, so that this very important division of the Museum now feels fully equipped to meet these most dangerous enemies of all Museums.

The work of permanent installation in the Department of Anthropology has been advanced in many directions, and more artisan labor has been performed, and more facilities for permanent installation provided, for this Department than any other, unless it may be the department of Zoology. Re-adjustment and repairs to old cases and the addition of new ebony cases, many textile frames and numberless ebony bases, has vastly improved the appearance of the Department, while the re-arrangement of collections and the transfer of material to obtain more suitable geographic and other significant relationships has very much improved the appearance of the entire Department. The North Court and the East Court have been entirely reinstalled. The large and undesirable objects in these two courts have been either returned to the donors, donated to other institutions, or stored for future disposition, and the two courts are now devoted almost exclusively to Archeology, the East Court to America, and the North Court to Europe. Halls 10, 11, 15 and 16 have been much improved in appearance by segregation, modification and the applica-

tion of a uniform system. The Division of Physical Anthropology has been organized and placed in the working circuit during the past year, and the alterations and improvements incidental to the establishment of this Division have required considerable labor. The Assistant Curator in charge of this Division has been provided with offices in the first East Court gallery, and a store room has been constructed for him with sliding trays, etc., adjoining his office and laboratory. Less physical alteration and re-arrangement has been necessary in the Department of Botany than in any other. However, the receipt of new material by expedition, gift, exchange and purchase now requires for this Department accommodations that will be furnished. The necessary facilities are being provided that will work a great change in this gallery during the ensuing year. A part of this work will consist in completing eight monographic series, which will include the following interesting displays:

1. { Rubbers and gums of the world.
Seeds and their natural appliances for traveling.
2. { Textile fibres of the world.
Cotton: its growth and utilization from the seedling to food, clothing, warfare, medicine, surgery, implements, paper, photography and the arts.
3. { Notable foods of the world.
Edible fruits and their products.
4. { Habit plants and their products.
Opium, Tobacco, Cocaine, Betel Nut, Tea, Coffee, Mate, etc., etc., Vegetable poisons, Curare Woorare, Hellebore, Pyrethrum, etc.

Eight special herbarium cases have been provided and placed in the laboratory of this Department, in which is being gathered a reference herbarium about the nucleus formed by the Yucatan material obtained by expedition. The Department of Geology exhibits very little physical change during the year, although plans are being executed that will materially improve Halls 66 and 67. The paleontological collection has been largely re-arranged and re-mounted, and now follows more nearly the stratigraphical order of occurrence. From the lithological collection, most of the polished slabs have been transferred to the Economic Division, and their places filled by specimens illustrating the petrology of Manhattan Island and the Green Mountains of Massachusetts. The metallic meteorites have been coated with varnish, and several of the relief maps have been retouched. In the Economic Division, a number of the halls have been re-installed, but the old cases and bases have been utilized in

this work. Hall 78, salts, asbestos, etc., has been completely re-arranged and the collections placed in logical order, while a collection illustrating the manufacture of soda has been added from storage. Hall 77, clays, sands, cements, etc., has also been completely re-arranged, while some of the inappropriate material such as tiling, etc., has been transferred to the Department of Industrial Arts. Hall 76, the metallurgy of iron, has received attention, and when the collections of test specimens is completed, the collection of malleable castings now in storage added, etc., the Hall will be in excellent shape. A large geological section of the oil fields has been added to the wall of Hall 71, Petroleum. The Department of Industrial Arts has made noticeable progress and improvements through re-arrangement and new material installed, transfers from other departments, etc. Two cases for knitting machines have been installed in the alcove of Hall 30; coin cases have been added to the installation of the alcove of Hall 33, while Higinbotham Hall has been practically re-installed, much interesting and valuable material added, new wall and upright cases provided, etc. In Ceramic Hall, several new cases have been added, one striking collection of old Sevres porcelain being provided with a large case for the center of the room. Additions have been made to the Division of Agricultural Implements in the alcove of Hall 31. In the Division of Transportation, Boat Hall and Hall 40 (Pack Animals) have been thoroughly overhauled, the models repaired and improved, and new models provided, while the original locomotives in the extreme East Annex have been cleaned, and a suitable preparation applied to all of the metal work. The Egyptian boat, presented by Mrs. McCormick, has been installed in the extreme end of the East Court, and surrounded by an iron railing, mounted upon ways, etc. The Department of Zoology has been entirely re-modeled during the year, Hall 20 being provided with a new set of cases of mahogany and plate glass, and the Department extended into the West Court. In the center of this Court has been placed groups, and the sides occupied by molluscan collections. A new wall case has been provided in Hall 21 for the butterflies which have been re-mounted and to accommodate the Ryerson Himalayan collection now being worked over. All of the birch cases in this Department have been stained to conform in color with the new mahogany cases, and a vastly improved appearance is the result. The working rooms of the Department in the second South gallery have been re-furnished with storage shelves, poisoning boxes, chests, etc. The growing collection in the Department of Ornithology necessitated the provision of more space, which was accomplished in

the re-arrangement of the Zoological halls. The Museum now has two very handsome bird rooms and several groups and uniquely mounted set pieces. The birch cases have all been mahoganized, and new mahogany cases provided for a duck group, horn-bill group, ostrich group, etc. New oological cases have been purchased, and this material re-arranged and re-installed. Room 27 in this Department contains North American species only, while Room 26 will contain the remainder of the collection. The Department in a number of directions has been noticeably improved.

A NEW DEPARTMENT.—With the assent of the Curators whose departments would be drawn upon for some of the material, a new Department named, "The Department of Monographic Collections," has been organized for the purpose of bringing together for illustrating particular phases of culture, material that had appropriate place in two or more of the departments of the Museum, the general scheme being upon chronological or evolutionary lines. Two divisions have been established in this Department, Printing and Graphic Arts, and Musical Instruments. The purpose of the first division is to show the history, the evolution and the practical processes of the arts employed in printing and illustration. The subjects are treated from the modern point of view, that is to say, as technical processes of the useful and fine arts of today, dating back to the fourteenth century, previous to which time they are purely of archeologic interest. The section of Graphic Arts has a large field. The arrangement of the specimens is according to the classification of Koehler, that is, first the old processes, including wood engraving, steel and copper line engraving, etching and mezzotint, and the lithographic and substitute processes. The modern methods are to be shown by themselves, and include all of the applications of photography to the graphic arts. In the line of older processes, several interesting accessions have been made. A small fund has been expended in prints that illustrate in an excellent manner the results of the different older processes, both plain and in color. They are at the same time good specimens of fine art, worthy to be placed upon the walls of the Museum. In the line of the modern processes there has been added recently an excellent series of specimens illustrating the half tone process, and the Museum section of Photography is now preparing a collection that will illustrate the history and development of photography, which will be included under this group. In the division of Musical Instruments, the installation at this time is far from satisfactory, owing to the crowded condition of the un-related

material in that part of the Building where it is now installed, and considerable re-arrangement will be demanded before this division will attract any particular attention. However, there is a good deal of material already collected and subject to requisition, that when grouped and placed with relation to chronology, geography, development of culture as well as character of instrument, will make an excellent beginning. So far, the unique examples are largely from Asia and Africa, although South America furnishes some very good objects. Several old piano movements, a calderarpa, and a collection of the movements of the modern piano are in place, and invite a great deal of attention from the visitors. It is hoped to add to the divisions of this Department within the year a tentative installation in fire-making and horology.

TAXIDERMY.—The section of Taxidermy established during the year, while without a head, in the absence in Africa of its chief workman, was not instituted in advance of requirements, for without considering new work, the material that has been restored, preserved and saved, is remarkable. The greatest work has been done among the old mounted mammals that have been re-installed in Hall 20. The entire collection purchased before the opening of the Museum has been carefully restored, embellished, repaired, renovated, re-mounted, etc., and presents an entirely fresh appearance. Quite a number of the specimens in this collection require such treatment that they have been stored awaiting the return of the Chief Taxidermist. Great care has been bestowed upon the re-poisoning of the entire collection. Eighteen large mammals, mostly antelopes and deer, were mounted before the African expedition started, and two groups of monkeys were designed, mounted and installed in the West Court. The accessories for these groups, tree trunks, branches, leaves, fruits etc., were also prepared by the Museum taxidermists. Quite a number of fishes, reptiles and crustacea have been prepared and mounted, and two hundred and thirty birds, mostly North American, have been mounted and added to the Ornithological collections. The Curator of Ornithology has prepared sketches and details for a heron and a duck group on which work is now in progress.

PHOTOGRAPHY.—Notwithstanding the poor quarters and lighting of the only available place for photographic work, much has been accomplished. The importance and need of such a section in the Museum is fully exemplified in the demand which has been made upon it from all departments for the illustration of publications and

the preservation of data. The details of this work are related in the following table :

	Negatives.	Prints.	Lantern Slides
Anthropology,	138	48	108
Botany,	108	78	137
Geology,	122	246	113
Industrial Arts,	88	41	36
Zoology,	144	29	39
Library,	144	85	52
General,	43	7	28
	<hr/> 702	<hr/> 529	<hr/> 513

The operator has manipulated the stereopticon at the lectures where it has been used.

PRINTING.—The printing office has been in constant operation. In the way of improvements, there have been added to the equipment a paper cutter, a series of wood type, and many metal fonts. The following figures show the number of impressions made in the way of label printing and general jobs :

	Labels.	Other Impressions.
Anthropology,	1,577	15,850
Botany,	1,861	12,250
Geology,	1,196	475
History,	8	
Industrial Arts,	1,278	5,000
Zoology,	3,775	6,500
Library,	47	26,699
Director's Office,	3,082	9,977

FIRE PROTECTION AND POLICING.—Fire Marshal D. J. Swenie, of the City Fire Department, made a personal inspection of the Building with reference to fire protection in September. His report in writing, dated September 28th may be summarized to say : “I found everything in first-class shape as regards cleanliness and freedom from rubbish, or anything that would invite a fire. Your future safety depends on the continuance of your present policy, viz., doing everything possible in the way of prevention.” It being deemed advisable to add further means of protection to the equipment already in operation, the Museum has purchased hose, couplings and pipes for ten new stations, a number of ladders, fire axes and pike poles, and has constructed additional trap doors for admission to the basement. Chief Swenie made no suggestions with reference to the Museum Fire Department, its rules, methods, etc., from which it is inferred that these were satisfactory. The regular semi-monthly fire drill of the guards is maintained, and the hourly inspection of the

building, including the basement and main dome is continued. The annual report of the Captain of the Fire Department conveys every indication of an efficient service in this important direction. The guard service has been very satisfactory during the year. So satisfactory in fact, that no changes have been made either in members or methods. There has been no complaint filed against the guard from the many thousands of visitors. The discipline and orderliness of the building has been carefully maintained, and no thefts reported.

PERSONAL PROPERTY AND INTRINSICALLY VALUABLE MATERIAL.—A list of the office furniture, desk supplies, of all tools, appliances, and accessories so far purchased by the Museum, has been taken from the vouchers and records, as a basis for the personal property inventory, which it is proposed to make each six months or year as circumstances may dictate. These lists were checked by the head of each department or division on whose account the material was purchased. The items unaccounted for will be erased from the inventory and hereafter new purchases will be added as made, and it is believed this system of searching for property of this character, will cause all concerned to exercise more care in its custody. The intrinsically valuable exhibition material has also been checked from the records, with satisfactory results, although it is contemplated to re-check the material in Higinbotham Hall in February when the services of an expert in jewels will be available.

ADMISSIONS.—The admissions for the year have diminished about 98,000, and this decrease seems to have affected all of the classes of visitors. There are several minor reasons for this falling off, but the emphatic cause is that people who the first year visited the Museum under the impression that it was a miniature World's Fair, have discovered their error, and being uninterested in the real scope of the Museum, have passed their vacation hours in pursuits that promised greater amusement and excitement than was furnished by the Museum. This is especially illustrated by the fact that there have been no great crowds on any one day, as was often the occurrence the first year. Visitors to the Museum now come for edification, instruction and study. There is one point, however, to which special attention should be directed in this connection, and that is the sharp decrease in the attendance of school children and students. Of course no record is kept of those school children and students who attend on the free days, as no tickets are issued and there are no means of distinguishing one visitor from another. But it is fair

to assume that if the free admissions on pay days in any particular class vary one year from another, it is a strong indication that the interest of this class is abating. The Museum has made every effort to encourage principals and teachers of schools of all characters to induce their scholars and students to utilize the opportunities offered by the institution to broaden and emphasize their education in scientific and technical directions, and it must be admitted that the Museum has been impressed during the year with the indifference of teachers; more especially those of the public schools. Several schools have carried this indifference to the point of not even providing their scholars with the tickets that are furnished through the office of the Superintendent of Schools. It would seem that if the attention of the proper authorities was brought to this condition of affairs, remedial measures might be adopted. A great many classes, and notably classes from the parochial schools have visited the Museum accompanied by teachers to take up some particular line of study, and in some instances after collections have been inspected and notes taken, talks upon the collections have been made in the Lecture Hall, the Curators often performing this service. This seems the most desirable method of utilizing the material in the Museum for the education of the young, and it is encouraged in every way possible.

Herewith are submitted financial statements, analysis of attendance, list of accessions, names of members, etc., etc.

FREDERICK J. V. SKIFF,

DIRECTOR.

FINANCIAL STATEMENT.

RECEIPTS AND DISBURSEMENTS

During Year ending September 30, 1896.

RECEIPTS.

Cash in Treasurer's hands, Sept. 30, 1895,		\$16,294.52
Petty Cash on hand, Sept. 30, 1895,		739.95
Dues of Members—		
Life,	\$ 500.00	
Corporate,	370.00	
Annual,	6,110.00	6,980.00
South Park Commissioners,		15,000.00
Chicago City Railroad Co.,		2,250.00
P. D. Armour,	10,000.00	
R. T. Crane,	5,000.00	
Norman B. Ream,	5,000.00	
A. A. Sprague,	5,000.00	
Edson Keith,	5,000.00	
Wm. A. Fuller,	5,000.00	
Geo. E. Adams,	5,000.00	
C. L. Hutchinson, on account,	3,000.00	43,000.00
Martin A. Ryerson, special donation account Zoology, . .	665.00	
Martin A. Ryerson, special donation account Botany, . .	50.00	715.00
George Manierre, special donation account Geology, . .	45.00	
George Manierre, special donation account Anthropology, .	22.50	67.50
W. J. Chalmers, special donation account Geology, . . .	45.00	
W. J. Chalmers, special donation account Anthropology, .	22.50	67.50
Dividend, World's Columbian Exposition stock:—		
Arthur B. Farwell,	5.00	
F. T. Ainicker,	2.00	7.00
Sale of Sundry Articles,		145.64
Interest on Investments,		40,085.56
Interest on Bank Balances,		170.66
Admissions,		6,281.65
Check Rooms,		1,491.25
Sale of Guides,		470.75
Sale of Securities,		25,000.00
		<u>\$158,766.98</u>

DISBURSEMENTS.			
Salaries,			\$37,732.87
Guard Service,			12,224.01
Janitor Service,			5,704.44
Fire Protection:—			
Wages of Firemen,	\$	2,760.00	
Uniforms and Supplies,		76.04	2,836.04
Heat and Light Account:—			
Wages of Engineer and Assistants,		2,668.22	
Fuel,		3,843.76	
Supplies,		714.54	7,226.52
Repairs and Alterations:—			
Wages of Carpenters, Painters, Roofers and Plasterers,		10,297.08	
Material used—Paints, Oils, Hardware, Glass, Lumber and Plaster,		2,685.04	
Contracts, Special Work,		8,769.35	21,751.47
Furniture and Fixtures:—			
Cases and Bases,		9,820.20	
Building Fixtures,		762.86	
Safe in Deposit Vault,		611.00	
Sundries,		344.66	11,538.72
The Library:—			
Books and Periodicals Purchased,		1,000.26	
Binding,		311.25	
Lecture Course,		47.28	
Expense Account,		103.10	1,461.89
Sections of Printing and Photography:—			
Printing—Type, etc., purchased,		169.15	
Wages of Printers,		923.65	
Photography—Stock Purchased,		113.61	
Supplies Purchased,		172.00	
Wages of Photographer,		600.00	1,978.41
Department of Anthropology:—			
Collections and Articles Purchased,		15,500.77	
Installation Expenses,		796.44	16,297.21
Department of Industrial Arts:—			
Collections and Articles Purchased,		396.24	
Installation Expenses,		187.67	583.91
B. & O. R. R., balance of contract,			7,547.35
Department of Geology:—			
Collections and Articles Purchased,		1,208.20	
Installation Expenses,		50.55	1,258.75
Department of Zoology:—			
Collections and Articles Purchased,		1,768.20	
Installation Expenses,		2,310.87	4,079.07
<i>Carried forward,</i>			\$132,220.66

OCT. 1896.

ANNUAL REPORT OF THE DIRECTOR.

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<i>Brought forward,</i>		\$132,220.66	
Department of Botany:—			
	Collections and Articles Purchased, . . .	\$400.00	
	Installation Expenses.	235.76	635.76
Department of Ornithology:—			
	Collections and Articles Purchased, . . .	28.30	
	Installation Expenses, , . . .	257.43	285.73
Department of Columbus Memorial:—			
	Expense Account,		92.00
General Expense Account:—			
	Freight, Expressage and Teaming,	3,621.17	
	Stationery,	1,388.56	
	Postage, Telegrams and Telephone, . . .	1,267.03	
	Publications,	2,565.52	
	Expeditions to Africa, The Gulf Coast, Mexico, etc.,	11,762.87	
	Guide, Fourth Edition,	565.53	
	Sundries,	2,585.70	23,756.38
			<hr/>
			\$156,990.53
In Treasurer's hands, Sept. 30, 1896,		1,036.50	
Petty Cash on hand, Sept. 30, 1896,		739.95	1,776.45
			<hr/>
			\$158,766.98

ATTENDANCE AND RECEIPTS FOR YEAR ENDING SEPT. 30, 1896.

ATTENDANCE.			
Total Attendance,			230,337
Paid Attendance:—			
Adults,	24,624		
Children,	1,259	25,883	
Free Admission on pay days:—			
School Children,	4,095		
Students,	827		
Teachers,	366		
Members—Corporate,	80		
Annual,	953		
Officer's Family,	124		
Special,	21	6,466	
Admission on Free days:—			
Saturdays,		54,641	
Sundays,		143,347	
Highest Attendance on any day (Aug. 23, 1896)	5,370		
Lowest Attendance " " (Feb. 3, 1896)	6		
Highest paid Attendance " (July 8, 1896)	917		
Average Daily Admissions, (366 days)	629		
Average Paid Admissions, (262 days)	99		

RECEIPTS.	
Guides sold—1893 @ 25 cents,	\$ 470.75
Articles checked—29,825 @ 5 cents,	1,491.25
Admissions,	6,281.65
Total,	\$8,243.65

ACCESSIONS.

FROM OCTOBER 1, 1895, TO OCTOBER 1, 1896.

DEPARTMENT OF ANTHROPOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

ALDIS, OWEN F., Chicago.

144 specimens of pottery, copper implements, obsidian implements, beads, etc.—Valley of Mexico and Oaxaca.

ARMOUR, ALLISON V., Chicago.

2 earthenware water bottles—Valley of Mexico.

Indian potter's outfit, (32 specimens); copies of ancient mural paintings and drawings, (89 sheets)—Mexico.

80 stone implements, 22 earthen vases, 24 negatives of Yucatan ruins, 12 bushels fragmentary pottery, etc.—Mexico.

65 archeological specimens: sun stone, diorite head of Tlaloc, obsidian core, head of idol, pestles, celts, fiber beaters, stone blades, bronze bells, arrowpoints, earthen dishes, silver beads, etc.—Valley of Mexico.

AYER, EDWARD E., Chicago.

Silver ornaments, articles of leather, baskets, fetiches, etc., (32 specimens) —Navajo Indians.

Medicine man's rattle—Indians of California.

Copper bracelet—Indians of N. W. Coast.

Piece of painted buffalo skin—Plains Indians.

Wristlet—New Guinea.

Bronze figure of Isis—Egypt.

32 specimens colored Roman glass, (fragments)—Rome.

1 unbaked brick—Egypt.

1 small carnelian figure, pendant—Egypt.

1 figure in green-glaze ware—Egypt.

2 statuettes of stone—Egypt.

AYER, E. E., PORTER, H. H., BURNHAM, D. H., and SINGER, CHAS.

2 bronze bath tubs, 6 bronze vases, 1 bronze table, 1 bronze lamp—Ancient Rome, Pompeii, (Loan).

AYER, MRS. EDWARD E., Chicago.

160 pieces blue-glaze earthenware; ornaments, ushabti figures, vases, etc.—Egypt.

44 pieces blue-glaze earthenware; ornaments, etc.—Egypt.

BLAIR, W. F., Chicago.

21 bronze figures of ancient gods, etc.—Egypt.

BURNHAM, D. H., Chicago. See Ayer.

CHALMERS, W. J., Chicago.

Quiver, necklace and stone implement, used by Indians of British Guiana.

CHERRIE, G. K., Field Columbian Museum.

2 Indian baskets—Louisiana.

FIELD COLUMBIAN MUSEUM.

Collected by W. H. Holmes:

30 specimens of ancient mining implements—Rockland, Michigan.

Purchases:

47 reproductions of ancient Roman bronzes, (purchased from S. de Angelis and Sons, Naples, Italy).

- 2 creeses or daggers—Malay, (purchased from J. C. Tanty, Chicago).
 1 buffalo robe, decorated with quill work, (purchased from John Butter, Chicago).
 Ancient Roman swords, knives and spear-heads of iron, 11 pieces—Italy;
 Phœnician glass, bronzes, stone vases, mummies of animals, etc., 256 pieces—Egypt and Syria; 27 small earthenware vessels—Egypt, (purchased by E. E. Ayer, Chicago).
 4 human skulls, (purchased from Truax & Green, Chicago).
 1 grooved stone axe, (purchased from Adolph Miller, Bowmanville, Ill).
 207 flaked flints—vicinity of St. Louis, Mo.; 28 large flaked stone implements—Ill. and Mo., (purchased from W. J. Seever, St. Louis, Mo).
 Collection of Eskimo material, 1172 specimens—Alaska, (purchased from Miner W. Bruce).
 Indian skull with arrow point imbedded behind nasal cavity, (purchased from J. V. Tallman, Pendleton, Oregon).
 Skull of Apache Indian woman, (purchased from F. M. Noe, Indianapolis, Ind).
- HUTCHINSON, C. L., Chicago.
 20 specimens earthenware vases, spoons, tablet and platter.
- KEELEY, DR. LESLIE E., Dwight, Ill.
 1 bronze sistrum—Egypt.
- KROWS, MELVIN, Momence, Ill.
 1 conch-shell hammer or casse-tete—Florida.
- LAEGELER, JULIUS, Highwood, Ill.
 Indian pack saddle and skin carrying bag—Sioux Indians.
- McCORMICK, CYRUS H., Chicago.
 1 ancient iron plow-point—Italy.
- MOORE, CLARENCE B., Philadelphia, Pa.
 32 stone celts, 1 shell celt, 1 shell casse-tete, etc.—Florida, (exchange).
- MUSEUM OF FINE ARTS, St. Louis, Mo.
 60 pieces of ancient Roman glass.
 2 bronze rings, (for examination).
- NEW BRUNSWICK NATURAL HISTORY SOCIETY, St. Johns, N. B.
 6 specimens of partially shaped spear points and flakes of flints, and 4 fragments of pottery—Queens County, N. B.
- PILLARS, JAMES, Lima, Ohio.
 27 photographs of stone implements—Ohio, (exchange).
- PORTER, H. H., Chicago. See Ayer.
- RYERSON, MARTIN A., Chicago.
 1 terra cotta Etruscan urn—Italy.
 4 ancient Roman terra cotta roofing tiles—Italy.
 500 prehistoric stone implements—Italy.
 20 small pieces of bronze, said to have been used as money.
 3 marble images of Buddha—India.
 13 copper and brass vases—India.
- SINGER, CHAS., Chicago. See Ayer.
- TALLMAN, J. V., Pendleton, Oregon.
 431 arrow and spear points—Oregon, (for examination).
- THOMPSON, E. H., Merida, Yucatan.
 Report on the ruined city of Xkichmook, Yucatan—Manuscript and drawings.

DEPARTMENT OF BOTANY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- CLARK, E. B., Chicago.
 2 specimens of fungi, (for examination).
- FIELD COLUMBIAN MUSEUM.
 Collected by Dr. C. F. Millspaugh, for Department of Botany:
 6 herbarium specimens—Mississippi.

- 3 herbarium specimens—Mt. Carmel, Ill.
- 76 specimens of fungi, 9 species—Blue Island, Ill.
- Trunk of tree, *Aralia spinosa*—New York.
- 1 photo-negative of *Aralia spinosa*—Waverly, N. Y.
- 31 specimens of fungi, cotton, and field species for Herbarium—Mississippi.
- 150 herbarium specimens (35 species) for Forestry Collection—Mississippi.
- 12 specimens of fruit—Mississippi.
- 36 blocks of wood—Mississippi.
- 2 bromide enlargements of negative—Mississippi.

Purchases:

- 3,500 botanical specimens, 560 species, and 1,150 herbarium plants, 200 species—Yucatan, (purchased from Geo. F. Gaumer, Izamal, Yucatan).

GRAY HERBARIUM. Cambridge, Mass.

- 2 dried plants, *Phyllanthus* and *Argythamnia*, (for examination).

LANSING, O. E., Chicago.

- 3 specimens of fungi.

LEE, J. ELLWOOD, CO., Conshohocken, Pa.

- 7 samples illustrating process of manufacture of absorbent cotton.
- 1 lb. "Hospital Grade" absorbent cotton, and 1 gallon liquor residue after first process in the manufacture of absorbent cotton.

MILLSPAUGH, C. F., Chicago.

- 3 herbarium specimens—North America, (exchange).
- 54 herbarium specimens—West Virginia, (exchange).
- 17 herbarium specimens—Brazil, (exchange).

NAUMANN, J., San Diego, Cal.

- Cane of Manzanita wood—natural curiosity, head in form of a woman, (for examination).

NEVIN, W. G., Chicago.

- 1 piece of oak wood, (for examination).

NUTTALL, L. W., Nuttallburg, W. Virginia.

- 45 fungi—West Virginia.

PALMER, DR. EDWARD, Washington, D. C.

- 6 photographs of trees—Acapulco, Mexico.

PARKE, DAVIS & CO., Detroit, Mich.

- 4 plants, Euphorbiaceae, (for examination).

PETFORD, C. E., Chicago.

- 32 plant products—Turkestan, (exchange).
- 14 specimens of fruits, gums, wood and rubber.
- 1 specimen of lace bark—Brazil.
- 11 specimens fruits, fibers and flowers—Johore, Java and Trinidad.

PHILADELPHIA COMMERCIAL MUSEUM, Philadelphia, Pa.

- 28 forestry products—Japan, (exchange).
- 146 forestry products—Siam, (exchange).

RYERSON, MARTIN A., Chicago.

- 150 herbarium specimens—Mexico.

SCHNECK, DR. JOSEPH, Mt. Carmel, Ill.

- 2 herbarium specimens—Mt. Carmel, Ill.
- 6 specimens of *Gladitchia monosperma*, leafing branch in spine and fruit Mount Carmel, Ill.

STREIT & SCHMIT, Cincinnati, O.

- Mounted photograph of curiously marked board of *Liriodendron tulipifera*.

THOMPSON, E. H., Merida, Yucatan.

- Pod and seeds of Xtabay—Chichen-Itza, Yucatan.

TOWNE, MRS. M. M., Lake Geneva, Wis.

- 9 specimens of fungi, 3 species—Harvard, Ill., (for examination).

- TRACY, PROF. S. M., Agricultural College, Miss.
 4 cotton plants in "square" and "bloom"—Mississippi.
- UNDERWOOD, L. M., Auburn, Ala.
 2 negatives of new species of Yucatan plant.
- VALDEZ, PORFIRIO, Merida, Yucatan.
 300 medicinal plants (100 species)—Yucatan.
- WHITMORE, O. S., Chicago.
 2 specimens of supposed poisonous plants, (for examination).

DEPARTMENT OF GEOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- AGUILAR, PONCIANO, Guanajuato, Mexico.
 23 specimens of Mexican minerals, Albite, Calcite, Valencianite, etc.—Guanajuato, Mexico, (exchange).
- AIZA, MANUEL, Durango, Mexico.
 1 specimen of Calcite, stalactitic, and 1 of Sulphur, stalagmitic—Desert of Mapimi, Mexico.
- ALMY, JOHN D., Villa Corona, Mexico.
 7 specimens of silver ores and minerals—Villa Corona and Durango, Mexico.
- AYER, E. E., Chicago.
 1 specimen of Calc Tufa—Tivoli, Italy.
- BERRY, ROBERT J., Durango, Mexico.
 7 specimens of mercury and tin ore—Durango, Mexico.
- BRENNAN, G. A., Chicago.
 Clay-ironstone concretion—supposed meteorite—(for examination).
- BROWN, C. W., Los Angeles, Cal.
 2 Corals, 3 Brachiopods, etc.—Appleton, Wis.
- BURNHAM, D. D., Battle Creek, Mich.
 6 charts showing the beginnings of life on earth, (for examination).
- BUTLER, E. C., U. S. Legation, Mexico, D. F.
 4 specimens of mercury ore—State of Guerrero, Mexico.
- CANN, JOS. BOARDMAN, Wyoming.
 1 specimen of supposed platinum ore.
- CARRERA, PROF. J. C., Las Cruces, N. M.
 1 specimen of Melaconite—Organ Mountains, N. M., (for examination.)
- CENTRAL SCHOOL SUPPLY HOUSE, Chicago.
 1 relief map each of northeastern Illinois, United States, North America, South America, Europe, Asia, Africa, the World.
 1 relief map of France, (loan).
- CHALMERS, W. J., Chicago.
 1 specimen of pseudomorph of Pyrite—Virginia.
 1 specimen of Crocidolite—Cape Town.
 1 specimen of *Calymene Blumenbachii* var. *Niagarensis*—Chicago Drainage Canal.
- CHOATE, J. C., Woodstock, Ill.
 1 specimen of hornstone in quartzite, (for examination).
 10 specimens of Trenton fossils, (for examination).
- CLAYTON, G. P., Pullman, Ill.
 1 specimen of sand concretion—Green County, Wis.
- COCKERELL, L. M., Guanajuato, Mexico.
 1 specimen of Quartz-crystal showing movable bubble—Guanajuato, Mexico.
- COLORADO SCHOOL OF MINES, Golden, Colo.
 74 specimens of fossil leaves and 10 specimens of minerals—Table Mountain and Golden, Colo., (exchange).

- DAY, DAVID T., Chief Mining Dept., Atlanta Exposition.
 12 specimens of nickel and gold ores—Canada and South Carolina.
 1 specimen of Magnesite—California.
- DERR, H. B., Chicago.
 1 specimen of *Athyra substellata*—Illinois Coal Measures.
- DIXON, CHAS., Elkhart, Ind.
 Tooth of *Elephas primigenius*, (for examination).
- DOTY, DUANE, Pullman, Ill.
 1 specimen of crystallized Gypsum in clay, 1 Gypsum crystal—Pullman Ill.
- DUCKWORTH, A. S., Chicago.
 100 specimens of Cretaceous fossils, representing 37 distinct species—Texas, (exchange).
- EBERSBACHER, ALF., Youngstown, Ohio.
 8 nuts from the Coal Measures of Mahoning County, Ohio.
- EHRENFELD, FREDERICK, Philadelphia, Pa.
 1 specimen of Philadelphite—Philadelphia, Pa.
- ESCUELA N. DE INGENIEROS, Mexico, D. F.
 15 specimens of minerals, including Apophyllite, Calcite, Guadalcazarite, Livingstonite, Bustamite, Xalostocite, etc.—Mexico, (exchange).
- FERRIS, DR. U. B., Chicago.
 1 slab showing glacial striæ—Chicago.
- FIELD COLUMBIAN MUSEUM.
 Collected by O. C. Farrington:
 21 specimens of silver ores, El Naya and Valenciana mines, building stones, specimens of Amethyst, Dolomite, Calcite, Quartz, etc.—Guanajuato, Mexico.
 15 specimens of Wulfenite, Aragonite, lead ore, Anglesite, etc.—Organ Mountains, N. M.
 24 specimens of silver ore, gangue and country rock, tufa, etc.—Pachuca, Real del Monte, Durango and Zacatecas, Mexico.
 25 specimens of Martite and rocks of Cerro Mercado—Durango, Mexico.
 31 specimens of lava, pumice, sulphur, glacial boulders, etc.—Popocatepetl, Ixtaccihuatl, and Valley of Mexico, Mexico.
- Purchases:
 259 specimens of fossils, (60 species)—Galveston Deep Well, Texas, (purchased from J. A. Singley, Giddings, Texas).
 300 specimens of Chicago fossils, 100 of Carboniferous fossils, 5 specimens of Quartz, 20 of miscellaneous minerals, and 45 of shells and corals, (purchased from Mrs. M. A. Kennicott, Chicago).
 15 specimens of Cretaceous Ammonites and Lamellibranchs—Livingston, Mont., (purchased from O. D. Booth, Forsyth, Mont.)
 25 crystals, (purchased from George L. English & Co., New York).
 3 specimens of Calcite—Joplin, Mo., (purchased from P. P. Peck, Joplin, Mo).
- FORDING, D., Alliance, Ohio.
 Supposed meteoric stone, (for examination).
- FURNESS, DWIGHT, Guanajuato, Mexico.
 1 specimen of Stephanite, 1 of Native Silver and 1 of chloride silver ore—Mexico.
- GILL, GEO. C., Olympian Springs, Ky.
 2 fossil Crinoids—Salt Lake Creek, Bath County, Ky.
- GILL, MRS. GEO. C., Olympian Springs, Ky.
 1 specimen of limonite concretion.
- GORDON, C. H., Beloit, Wis.
 1 specimen of Syenite-gneiss, (Leopard Rock)—High Rock Mine, Ottawa, Canada.
- HAND, N. S., Silver City, N. M.
 1 piece of Onyx, banded—Mexico.
 1 specimen of Cobaltite—Silver City, N. M.

- HATRY, OTTO, Kansas City, Mo.
1 slab of Carboniferous fossils, 1 specimen of *Cyathophyllum*, (exchange).
1 specimen of *Baculites ovata*, (exchange).
- HELMER, M. F., Mechanicsville, Iowa.
1 specimen of Chalcedony, (for examination).
- HOLMES, W. H., Field Columbian Museum.
1 specimen of Albertite—Utah.
Piece of Albertite, (for examination).
- HUNTINGTON, J. D., Chicago.
5 specimens of Obsidian and Calcite—Regla Falls and Pachuca, Mexico.
- JACKSON, CHAS. P., San Francisco, Cal.
Shingle and nail from cabin of J. M. Marshall, the discoverer of gold in California, and a piece of granite from his monument at Colona, Cal.
- KANE, W. G., Kansas City, Mo.
4 specimens Muscovite in Biotite—Custer, So. Dakota, (exchange).
- KELLER, MRS. C. F., Little River, Kansas.
7 specimens pyrite, gypsum, limestone, marl, etc.—Little River, Kansas, (for examination).
- KELLER, MRS. I. R., Chicago.
1 specimen of sand from Mount Olivet, Jerusalem.
- KÖNIGLICHE BERGSWERKSDIRECTION, Saarbrücken, Germany.
1 geological map—Saarbrücken Coal Fields, Germany.
- LANDERO, CARLOS, representing Compañía Minera de Pachuca y Real del Monte, Pachuca, Hidalgo, Mexico.
25 specimens of silver ores and minerals—Real del Monte and Pachuca, Mexico.
- LAWRENCE, W. J., Chicago.
3 specimens of Pyrite, 1 of Chrysocolla—Colorado and Utah.
2 fossils—Chicago, Ill.
1 specimen of cut Rubellite—California.
1 specimen of stalactitic Calcite—Southern Illinois.
1 specimen of Malachite and Azurite—Bisbee, Ariz. (exchange).
- LEFFMANN, CARLOS, Guanajuato, Mexico.
2 specimens of Albite, and one of Manganite after Calcite—Guanajuato, Mexico.
- MCCAULEY, CHARLES, Chicago.
Fragment of alum, supposed to have fallen from the sky—Chicago, (for examination).
- MEEK, M. W., Chicago.
18 mineral specimens, (for examination).
5 specimens of Trenton fossils, (for examination).
- MILLARD, W. K., Chicago.
1 *Cyathophyllum*, Grass Lake, Ill., (for examination).
- MILLER, E. C., Chicago.
1 specimen of *Calymene Blumenbachii*, var. *Niagarensis*—Drainage Canal, Cook County, Ill.
- MILLSPAUGH, MRS. M. L., Chicago.
4 specimens of fossil coral—Petoskey, Mich.
- MINNESOTA IRON CO., Soudan, Minn.
1 large oil painting of a section of a mine—Soudan, Minn.
- MOSS, PROF. MILTON, Chicago.
2 specimens of Chenixite, and 2 of Conichalcite—Eagle Mine, Utah.
- MUSEO NACIONAL DE MEXICO, Mexico, D. F.
8 specimens of minerals, including Cassiterite, Topaz, Stilbite and Calcite—Mexico, (exchange).
- NAGELOONT, T. B., Chicago.
Sand from under kame—Northville, Mich.
- NATIONAL MALLEABLE CASTINGS CO., Chicago.
6 specimens illustrating the manufacture of malleable castings.

- NEW BRUNSWICK SOCIETY OF NATURAL HISTORY, St. Johns, N. B.
24 specimens of Devonian fossil plants in slate—Fern Ledges, St. Johns, N. B., (exchange).
- NICHOLS, H. W., Field Columbian Museum.
Specimen of free gold in quartz—Nova Scotia, (loan).
- NORIEGA, PEDRO DE LA, Ameca, Mexico.
3 specimens of Sulphur—Popocatepetl, Mexico.
- OROZCO, PABLO, Guanajuato, Mexico.
8 specimens of Calcite, Quartz, Silver, Argentite, etc.—Guanajuato, Mexico, (exchange).
- PECK, P. P., Joplin, Mo.
Large cluster of crystallized Calcite, 2 specimens of single crystals of Calcite, 2 specimens of crystallized Galena—Joplin, Mo., (exchange).
- PENFIELD, PROF. S. L., New Haven, Conn.
8 specimens of rare minerals.
- REED, LIEUT. HUGH T., Chicago.
2 pieces of glacial boulder—Chicago, (for examination).
- RODRIGUEZ, FIDENCIO, City of Mexico.
1 specimen of Hornblende-Andesite—Tlapacays, Mexico.
1 specimen of Olivine-Basalt—Ixtapalapa, Mexico.
1 specimen of Polybasite—Zacatecas, Mexico.
1 specimen of Sulphur—Popocatepetl, Mexico.
- RUST, HORATIO N., South Pasadena, Cal.
Specimen of supposed meteoric iron.
- SAFFORD, J. M., Nashville, Tenn.
3 casts of teeth of *Petalodus Ohioensis*.
- SHEAHAN, THOMAS, Batavia, Ill.
26 specimens of *Calymene Blumenbachii*, var. *Niagarensis*, with specimens of pyrite and chert—Chicago Drainage Canal.
- SNYDER, WM. ALBERT, Chicago.
15 specimens of septaria and fossiliferous pebbles.—Glen Pier, Mich.
- SPAULDING, GEO. H., Marion, Ind.
3 specimens of chert and pyrite concretions, (for examination).
- SVEGE, A. E. J., Field Columbian Museum.
1 specimen of *Baculites*—Medicine Hat, Assiniboia.
- THOMPSON, E. H., Merida, Yucatan.
Specimen of limestone—Yucatan, (for examination).
- ULLERICK, DR. C. A., Chicago.
1 specimen of siliceous oolite.
Fragment of a *Ganoid*—Colorado, (for examination).
- U. S. NATIONAL MUSEUM, Washington, D. C.
1 crystal of Triplite—Stoneham, Me., (for examination).
- WATTLES, JUNIUS H., Kansas City, Mo.
1 specimen of geode containing Siderite and Dolomite—Kansas City, Mo.
- WELLER, S., University of Chicago.
5 casts of type specimens of *Petalocrinus mirabilis*—Iowa.
- WERTHY, WM., Sailor Springs, Ill.
2 specimens Hornblende Granite and Galena, (for examination).
- WILLIAMS, T. B., Chicago.
1 basket Tallow clay and associated chert and limestone—Reynolds Co., Mo., (for examination).

DEPARTMENT OF HISTORY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- CURTIS, WM. E., Washington, D. C.
2 photographs of Columbus Monument, Mayaguez, Puerto Rico.
- DALE, JOHN T., Chicago.
Gun originally owned by Ethan Allen, Revolutionary General.

DAY, J. L., Chicago.

Copy of "The Old Flag," a paper printed with pen and ink.

EVANS, W. S., South Chicago.

16 specimens of U. S. fractional currency, stamps, Exposition pass, etc., contained in one frame.

FRENCH, D. C., New York.

Wreath and acorn for "Republic Statue."

KUNZ, GEO. F., New York.

1 bronze medal, (loan).

MOSS, PROF. MILTON, Chicago,

Map of Edinburgh in 1647, (copy).

SIMPSON, HALL, MILLER, & CO., Chicago.

Exposition souvenirs—3 silver plaques.

1 silver napkin ring.

SKIFF, F. J. V., Field Columbian Museum.

Copy of Harper's Weekly, April 29, 1865, containing account of Lincoln's assassination.

STEVENSON, DUDLEY.

6 admission tickets World's Columbian Exposition.

WARREN, PAUL, Chicago.

Chromolithograph of the Art Building.

WILSON, MARSHALL J., Chicago.

Confederate money: 5c, 15c, 25c and \$1.00.

WORLD'S COLUMBIAN EXPOSITION.

4 invitations and programmes to Exposition functions.

DEPARTMENT OF INDUSTRIAL ARTS.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

AYER, EDWARD E., Chicago.

1 piece, cross-section, of first iron rail laid in Chicago.

BALLIN, MEYER, Chicago.

Crayon portrait of Hans Christian Andersen.

BHUMGARA & CO., F. P., London.

1 vase of green, blue and white with elephant's head as mouth.

BURY & CO., EDWARD, Liverpool, England.

2 blue prints showing engines constructed to Dec. 1834, and measurement of engine "Liverpool."

DODGE, LEMUEL P., Oak Park, Ill.

1 intaglio enclosed in gold locket, (for examination).

FIELD COLUMBIAN MUSEUM.

Purchases:

500 mounted specimens of velvet, brocades, etc.—Italy; gold beads, gold earrings and gold bracelet, 8 pieces; crystal figure of owl with head of gold, and 1 specimen of Sicilian silk, (purchased by E. E. Ayer).

28 pieces of crystallized gold—Breckinridge, Colo., (purchased from J. R. Putnam & Co., Chicago).

63 coins—42 B. C. to 1840 A. D., 1 silver snuff box, and 1 piece of carved ivory, (purchased from Thos. Gillett, Chicago).

65 pieces of old china, and 4 Wedgewood cameos, (purchased by E. A. Barber, Philadelphia, Pa.).

1 harp piano, (purchased from E. D. Lindsay, Chicago).

1 antique Dutch copper and brass snuff box, (purchased from W. H. Peck, Chicago).

Complete series (17 specimens) of materials used in tanning fancy leathers, (purchased from Tiffany & Co., New York).

GETTY, H., Chicago.

81 pieces of Roman plaid textiles.

- GLENNY SONS & CO., W. H., Buffalo, N. Y.
2 jugs of Doulton ware, (Columbia jugs).
- HAWKINS, ARMAND, New Orleans, La.
1 old French faience plate known as the "Rouget de Lisle plate."
1 plate made by Mason in 1818, known as the "Billy Bowleg plate."
- JESURUM & CO., M., Venice, Italy.
104 specimens of mounted velvets and brocades, and laces—Venice, Italy.
- KEELEY, MRS. LESLIE E., Dwight, Ill.
13 Rhoda and 4 Damascus plates.
- KING, WM. G., Chicago.
Railroad time-table.
- KIRCHEISEN, F., Chemnitz, Germany.
Fabric glove machine—Chemnitz, Germany.
- KOERNER BROTHERS, Chemnitz, Germany.
Old hosiery loom—Chemnitz, Germany.
- LINTON, ALFRED, Chicago.
1 bronze medal, (for examination).
- MCCORMICK, C. H., Chicago.
3 Arabian plows, etc.—Egypt.
1 plow—Southern Palestine.
1 plow—Galilee.
1 yoke—Palestine.
1 seed-sower.
- MCCORMICK, MRS. C. H., Chicago.
1 ancient cedar boat—Egypt.
- MORRIS, MISS JESSIE, Chicago.
1 antique cotton bed spread—India, (loan).
- REESE, HENRY, Baltimore, Md.
1 battery claimed to have been originally used by Morse on line between Washington and Baltimore, (for examination).
- SCHIMMELPFENG, MRS. MARIE, Chicago.
8 shell cameos, (for examination).
32 cups, saucers, vases, etc., of Sévres and Dresden porcelain, (loan).
- SCHLESINGER, B. F., Chicago.
1 silk loom and accessories—Japan.
- SHEARER, MRS. W. W., Chicago.
3 pieces of old china.
- SIMMS, S. C., Field Columbian Museum.
1 porcelain vase, white overlaid glaze, colored decoration—School of Technology, Tokyo, Japan, (loan).
- SMITH, WILLARD, Chicago.
Collection of railroad tickets and passes from railways of Victoria, Australia.
- VISCONTI, F., Chicago.
3 antique bronze coins, (for examination).

DEPARTMENT OF MONOGRAPHIC COLLECTIONS.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)*

DIVISION OF PRINTING AND GRAPHIC ARTS.

- BARNHART BROS. & SPINDLER, Chicago.
Old Ramage Press, (transferred from Library).
- BINNER ENGRAVING CO., Chicago.
8 specimens illustrating progressively the Half-tone process.

*Collections marked as transferred from another department have been previously acknowledged. They are mentioned again in order to give a complete list of collections in this newly-created department.

CARTER, E. P., Chicago.

1 copy of "The Trenton Weekly Mercury," 1788, and 1 copy of "Poor Will's Almanack," 1793, (transferred from Department of History).

CHICAGO PHOTOGRAVURE CO., Chicago.

Collection illustrating Collotype process, (transferred from Library).

DEVOLL, MRS. GEO. B., Sandwich, Ill.

Copy of first newspaper published in America, (transferred from Library).

DICK & CO., A. B., Chicago.

Collection illustrating mimeograph work.

FIELD COLUMBIAN MUSEUM.

Purchases:

14 pictures of early printers, presses, etc., (purchased from J. O. Wright, New York.)

20 color prints, portraits, painter etchings, mezzotints, etc., (purchased from R. M. Lindsay, Philadelphia, Pa).

4 electrotypes and zinc etching, (transferred from Library).

2 old books printed in 1641 and 1679; and old Bible, (purchased from H. B. McGregor, Pontiac, Ill.

GERMAN GOVERNMENT PRINTING OFFICE, Berlin, Germany.

Frames of specimens showing style of printing, etc., (transferred from Library).

GOWARD, G., Chicago.

19 Japanese prints.

GUSTAVUS ADOLPHUS COUNCIL, No. 215, Chicago.

Old Swedish Bible.

HAMILTON MFG. CO., Two Rivers, Wis.

Wood type, (transferred from Library).

HOE & CO., R., New York.

21 pictures of printing presses and samples of color work, (transferred from Library).

JAPAN ART INSTITUTE, Tokyo, Japan.

Kokka—an art magazine in Japanese, (transferred from Library).

LEE, G. A., Chicago.

Danish Bible of the year 1550, (loan).

LEVY, MAX, Philadelphia, Pa.

Glass screen ruled 133 lines to the inch, for half-tone process.

MERGENTHALER LINOTYPE CO., New York.

Photograph of Linotype press, matrices, slugs of type, (transferred from Library).

MILLSPAUGH, C. F., Field Columbian Museum.

Etching tools, copper plate and print.

PETTIBONE & CO., P. F., Chicago.

Collection illustrating lithograph printing.

SHILLING, J. L., Chicago.

7 proofs of photo-chrome printing.

TUCK & SONS., RAPHAEL.

2 albums containing samples of chromo-lithograph cards, (transferred from Library).

U. S. DEPARTMENT OF STATE, Washington, D. C.

Picture showing monks working at printing press, (transferred from Department of History).

U. S. NATIONAL MUSEUM, Washington, D. C.

Photograph of Benjamin Franklin Printing Press; 17 pictures of old printing presses.

WESTERN BANK NOTE CO., Chicago.

Collection illustrating steel engraving.

WILE, JACOB, LaPorte, Ind.

Scrolls of parchment and accessories, (transferred from Library).

DIVISION OF MUSICAL INSTRUMENTS.

COALE, H. K., Chicago.

Old piano, (transferred from Department of Anthropology).

JAVA CHICAGO EXPOSITION SYNDICATE.

Musical instruments, (transferred from Department of Anthropology).

LINDSAY, E. D., Chicago.

Calderarpa or harp piano, (transferred from Department of Industrial Arts).

LYON & HEALY, Chicago.

11 musical instruments, (transferred from Department of Anthropology).

MEYER & SON, C., Philadelphia, Pa.

Iron plate piano, (transferred from Department of Anthropology).

WESSELL, NICKEL & GROSS, New York.

Piano movements, (transferred from Department of Anthropology).

WORLD'S COLUMBIAN EXPOSITION, Department of Ethnology.

27 musical instruments, (transferred from Department of Anthropology).

DEPARTMENT OF ORNITHOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

AKELEY, C. E., Field Columbian Museum.

1 mounted *Ardetta neoxena* Cory.

AMERICAN MUSEUM OF NATURAL HISTORY, New York.

9 bird skins—Brazil, Mexico, Yucatan, Guiana, (for examination).

BRANDLER, CHAS., Field Columbian Museum.

2 birds: *Syrnium nebulisum* and *Asio wilsonianus*.1 mounted bird: *Accipiter cooperi*—Milwaukee, Wis.

CHRISTENSEN, L. A., Baldwin, Wis.

1 bird's nest made of twine.

CORY, C. B., Boston, Mass.

23 bird skins and 1 nest—Florida.

FIELD COLUMBIAN MUSEUM.

Collected by Geo. K. Cherrie:

2 mounted birds: *Symphemia semipalmata* and *Calidris arenaria*—Indiana.

38 bird skins—Du Page Co., Ill.

121 bird skins, 37 species—Mississippi.

229 bird skins—Louisiana.

609 bird skins, 96 species—Texas.

Nest and 4 eggs of *Tyrannus tyrannus*—Wolf Lake, Ill.

20 bird skins, 12 species—Wolf Lake and South Chicago, Ill.

32 mounted birds, 20 species—Jackson Park, Hegewisch and Worth, Ill.

14 bird skins, 8 species—Wolf Lake, Ill.

15 bird skins—Worth and Glen Ellyn, Ill.

36 mounted birds—Illinois.

22 bird skins, 15 species—Indiana and Illinois.

Collected by I. N. Travis:

7 birds: *Laurus argentatus smithsonianus*—Chicago.Nest and 4 eggs of *Pooecetes gramineus*—Whiting, Ind.

25 mounted birds, 18 species—Whiting, Ind.

7 mounted birds—Indiana.

1 mounted bird: *Strix pratincola*—Chicago.

Purchases:

8 birds—Illinois, Indiana and Iowa, (purchased from Lepmann & Heggie, Chicago).

1 mounted lynx for bird group, (purchased from W. W. Hart & Co., New York).

- 6 bird skins—California, (purchased from W. W. Price, Palo Alto, California).
 9 birds—Illinois, (purchased from G. W. Linn & Son, Chicago).
 1 bird: *Chen hyperborea*—Illinois, (purchased from Barnett Bros., Chicago).
 12 mounted birds, (purchased from I. N. Travis, Field Columbian Museum).
 6 birds—Illinois, (purchased from J. N. Adams, Chicago).
 2 birds: *Bubo virginianus*, *Anas americanas*—Wisconsin, (purchased from Chas. Brandler, Field Columbian Museum).
 2 birds: *Anas boschas*, *Anas obscura*—Illinois, (purchased from M. Mayer, Chicago).
 MANIERRE, A., Chicago.
 1 old-squaw duck, *Clangula hyemalis*.
 MOULTON, MRS. G. M., Chicago.
 1 peacock.
 RYERSON, M. A., Chicago.
 1 mounted, albinistic, American coot, *Fulica americana*.
 SMITHSONIAN INSTITUTION, Washington, D. C.
 7 bird skins, *Chordeiles v. henryi*, (for examination).

DEPARTMENT OF ZOOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- ADAMS, W. H., Peoria, Ill.
 1 dead shrew, in the flesh.
 ARMOUR, A. V., Chicago.
 5,000 insects—Yucatan.
 BOOTH, A., PACKING CO., Chicago.
 1 fish, *Mola Mola*.
 CHALMERS, W. J., Chicago.
 2 spiders, 1 scorpion, 1 horned toad, 1 trap-door spider's nest, 1 rattle-snake skin, 1 centipede—British Guiana.
 CHERRIE, GEO. K., Field Columbian Museum.
 1 snake, *Thamnophis radix*—Chicago.
 CHERRIE, MRS. G. K., Chicago.
 2 horned toads, *Phrynosoma*, 1 land turtle, *Testudo*—Texas.
 CHIRPE, ROBERT, Chicago.
 Bat with three young, alive—Chicago.
 COOPER, E. R., Chicago.
 1 Grizzly bear, *Ursus horribilis*—Montana.
 CORY, PROF. C. B., Boston, Mass.
 19 mammal skins—Florida, Bahamas, Yucatan and Cuba.
 1 mounted puma, *Felis concolor* L.
 DORR, GEO. J., Chicago.
 1 tooth of elephant.
 FIELD COLUMBIAN MUSEUM.
 Collected on Owen F. Aldis Expedition, by O. P. Hay:
 686 fishes, 2 dried sponges, 2 egg-cases of sharks, 180 shells of mollusks, 77 crabs, 10 shrimps, 2 young alligators, 2 ascidians, 16 sea-urchins, 2 masses of egg-cases of mollusks, 15 star-fishes, 4 skins of sharks, 1 skin of saw-fish, 2 skins of cow-nosed rays, 1 jaw of shark, 1 rough skeleton of fish, 1 string of egg-cases of mollusks, 1 mass of oyster-shells on root of mangrove—Florida.
 Collected by G. K. Cherrie:
 4 skins and skulls of *Lepus*, 3 skins and skulls of *Sphermophilus*—Corpus Christi, Texas.
 Purchases:
 2,669 mammal skins and skulls, (purchased from W. W. Price, Palo Alto, Cal.).

- 3 proboscis monkey skins and a baby ourang, (purchased from C. E. Akeley, Field Columbian Museum).
- 5 antelopes (1 mounted, 4 skins)—Africa, (purchased from F. W. Franklin, New York City).
- 1 skin of *Equus somalicus*, 2 skins of *Antelope pelzelni* male and female—Africa, (purchased from E. Gerard & Son, London, England).
- 13 turtles—North Carolina, (purchased from H. H. & C. S. Brimley, Raleigh, N. C).
- 1 albino skunk, mounted—Montana, (purchased from Luke Dillon, Columbia Falls, Mont).
- Skin and skeleton of black wolf—Manitoba, (purchased from A. C. Foster, Winnipeg, Manitoba).
- 1 pickerel, *Lucius lucius*—Green Bay, (purchased from S. S. Lewis, Chicago).
- 10 large mammal skins—Siberia, Africa, Japan, Corsica, (purchased from J. F. G. Umlauff, Hamburg, Germany).
- 1 white-tailed gnu, *Connochaetus taurinus*, (purchased from Rowland Ward & Co., London, England).

GILL, DR. GEORGE M., Chicago.

1 butterfly, *Papilio ajax*.

1 Hemiptera, *Emesa longipes*.

GILMAN, J. C., Field Columbian Museum.

Shell of snail (*helix*)—Chicago.

GUATEMALA COMMISSION, World's Columbian Exposition.

Collection of reptiles and insects—Department of Peten, Guatemala.

HAY, O. P., Field Columbian Museum.

1 rattlesnake, *Crotalus horridus*.

2 turtles, *Macroclermys concentrical*.

1 skull of dog.

HAY, W. P., Washington, D. C.

1 rough green snake, *Cyclophis vestinus*—Washington, D. C.

HUME, J. A., Field Columbian Museum.

4 fishes.

HUTCHINSON, C. L., Chicago.

3 boxes of sponges—Greece, (for examination).

KIMBALL, J. A., Astabula, Florida.

1 shed skin of the diamond rattlesnake.

MINNEAPOLIS ACADEMY OF NATURAL SCIENCES, Minneapolis, Minn.

Deer skin—Phillipine Islands, (for examination).

PEABODY, DR. S. H., Chicago.

1 dragon-fly, *Æschna julia*—Chicago.

PENSE, GEO. B., Cape Gracias, Nicaragua.

1 fish, *Symbranchus Marmoratis*—Nicaragua.

PHILADELPHIA ACADEMY OF SCIENCES, Philadelphia, Pa.

23 shells.

RINGLING BROTHERS.

Skeleton and skin of female giraffe, *Camelopardalis giraffa* Schreber.

Skin of boa constrictor.

RUSSELL, MRS. ANNE M., Ravinia, Ill.

1 box of shells—California.

RYAN, P. T., Chicago.

1 soft-shell turtle.

RYERSON, MARTIN A., Chicago.

6 orang-outangs.

5 proboscis monkeys—Borneo.

12 deer skins—Phillipine Islands.

13 skulls—Borneo.

700 unmounted butterflies, *Lepidoptera*—Darjeeling, India.

1 porcupine—Phillipine Islands.

SMITH, ERNEST N., Chicago.

1 skin of fish, *Stereolepis gigas*—Santa Catalina Island, Cal.

TIFFANY & CO., New York, N. Y.

1 fruit bat, (for examination).

U. S. NATIONAL MUSEUM, Washington, D. C.

105 specimens of fishes.

WHEELER, DR. WM. M., University of Chicago.

1 turtle, *Emys blandingii* Holbrook—West Pullman, Ill.

WISWALL, MRS. E. C., Kenosha, Wis.

38 polished shells, (for examination).

WITTER, C. ORVILLA, South Bend, Ind.

2 snakes, *Ophibolus doliiatus*, *Eutainia saurita*, South Bend, Ind., (for examination).

THE LIBRARY.

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Books, Pamphlets and Serials.

ACHELIS, DR. TH., (the author), Bremen, Germany.

Moderne Völkerkunde, (exch.)

ALABAMA GEOLOGICAL SURVEY, Montgomery, Ala.

Bulletin no. 4, (exch.)

ALABAMA INDUSTRIAL AND SCIENTIFIC SOCIETY, Tuscaloosa, Ala.

Proceedings, 1891-96, (exch.)

ALDRICH, HON. J. FRANK, Chicago.

U. S. Coast and Geodetic Survey. Report, 1891, parts 1-2.

U. S. Department of Agriculture. Report of Chief of Weather Bureau, 1891-92.

U. S. Department of Agriculture. Report of Secretary, 1892.

Heyl, L.: U. S. duties on imports, 1891.

U. S. Treasury Department. The foreign commerce and navigation of

U. S. 1893. Commerce of U. S. with European countries, 1790-1890.

Report of Commissioner of Navigation, 1894.

U. S. Department of the Interior, Bureau of Education. Circular of information, nos. 2 and 4.

Immigration and passenger movement at the ports of U. S.

Illinois Bureau of Labor Statistics. Report, 1892.

U. S. Bureau of Ethnology: 4 pamphlets.

U. S. Geological Survey of the Territories. Final report, vol. 3, book 1.

International American Conference reports, 4 vols.

First Pan-American Medical Congress transactions, 2 vols.

International Prison Congress (3rd), Paris. Report of U. S. delegates.

American Historical Association. Annual report, 1894.

ALLEN, E. P., Field Columbian Museum.

Anthony's Photographic Bulletin, vols. 1, 2 and 5.

Wilson's Photographic Magazine, vol. 22, no. 457.

The Photo Beacon, vol. 7, no. 5.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, Salem, Mass.

Proceedings, vol. 44, (exch.)

AMERICAN LIBRARY ASSOCIATION, Cleveland, O.

Concerning the American Library Association, 18th General Conference.

AMERICAN MUSEUM OF NATURAL HISTORY, New York.

Bulletin, vol. 1, no. 6.

Bulletin, vol. 7, no. 4.

Annual report, 1895, (exch.)

AMERICAN PHILOSOPHICAL SOCIETY, Philadelphia, Pa.

Proceedings, 1893, (exch.)

- AMERICAN SOCIETY OF NATURALISTS, Boston, Mass.
Records, vol. 1, incomplete.
Records, vol. 2, current nos., (exch.)
- APACHE, ANTONIO, Field Columbian Museum.
Collection of 100 books and pamphlets, chiefly on the World's Columbian Exposition.
- ARIZONA AGRICULTURAL EXPERIMENT STATION, Tucson, Ariz.
Bulletin, 1896.
- ARTHUR, PROF. J. C. (the author), Lafayette, Ind.
Development of vegetable physiology.
The distinction between animals and plants.
Deviation in development due to the use of unripe seeds.
Delayed germination of cocklebur.
- ASIATIC SOCIETY OF BENGAL, Calcutta, India.
Annual address by the president, 1896.
Journal, vol. 65, part 1, no. 1, part 2, nos. 1 and 2.
Proceedings, nos. 1-3, 1896, (exch.)
- ASTOR LIBRARY, New York.
Annual report, 1894, (exch.)
- AUSTRALIAN MUSEUM, Sydney, Australia.
Records, vol. 2, no. 7, (exch.)
- BARBER, EDWIN ATLEE (the author), West Chester, Pa.
The Cartlidge Porcelain Works.
The Museum, vol. 1, nos. 1-4.
- BASSETT, HELEN W., Chicago.
The Folk-lorist, vol. 1.
The Folk-lore Manual.
- BAUER, DR. MAX (the author), Marburg, Germany.
Das vorkommen und die gewinnung des rubins in Birma, with another pamphlet, (exch.)
- BEMENT, CLARENCE S. (the author), Philadelphia, Pa.
Third rough list of meteorites, (exch.)
- BERLIN KÖNIGLICHE MUSEEN, Berlin, Germany.
Nachtrag zum verzeichnis der verkäuflichen gipsabgüsse. 23 pamphlets, (exch.)
- BERLIN KÖNIGLICHE MUSEUM FÜR VÖLKERKUNDE, Berlin, Germany.
Etnologisches Notizblatt, heft. 2-3.
Ethische elementar gedanken, abth. 1-2.
Veröffentlichungen, vol. 4, no. 1.
Denkschöpfung umgeb. welt aus kosmog. vorstellungen, (exch.)
- BESSEY, PROF. C. E., Lincoln, Neb.
Contributions from the Botanical Department, University of Nebraska, new series, 1 to 10 incl.
Reports, 1-3 of the Botanical Survey of Nebraska.
Sargent's studies of the forests of Japan, by the donor.
- BLACK DIAMOND COMPANY, Chicago.
Black Diamond, current nos.
- BLAIR, W. F., Chicago.
Le panthéon égyptien, by Paul Pierret.
- BOETTGER, FRED, Peoria, Ill.
Flora Peoriana (2 copies), by F. Brendel, (exch.)
- BORNTAEGER, GEBRÜDER, Berlin, Germany.
Die literatur des jahres 1892 über morphologie, systematik und verbreitung der phanerogamen.
- BOSTON MUSEUM OF FINE ARTS, Boston, Mass.
20th annual report, 1895.
Catalogue of a collection of etchings, by F. S. Haden, (exch.)

- BOSTON PUBLIC LIBRARY, Boston, Mass.
Annual report, 1895.
Monthly bulletin, 1896, (exch.)
- BOSTON SOCIETY OF NATURAL HISTORY, Boston, Mass.
Proceedings, vol. 26, vol. 27, parts 1-6.
Memoirs, vol. 5, nos. 1-2, (exch.)
- BOSTON TRANSIT COMMISSION, Boston, Mass.
First annual report, 1895.
- BOSTON UNIVERSITY, Boston, Mass.
Year book, vols. 22 and 23.
Annual report, 1895.
3 catalogues, (exch.)
- BOWDOIN COLLEGE, Brunswick, Me.
Address at the dedication of the Mary Frances Searles Science Building.
11 publications, catalogues, etc., (exch.)
- BREZINA, DR. A. (the author), Vienna, Austria.
Die meteoriten sammlung des K. K. Naturhist. Hofmuseums.
Ueber neuere meteorite.
- BRIDGEPORT PUBLIC LIBRARY, Bridgeport, Conn.
Catalogue of 2nd annual winter exhibition of paintings.
15th annual report, 1896, (exch.)
- BRINTON, DANIEL G. (the author), Media, Pa.
Relations of race and culture to degeneration of the productive organs in women, (exch.)
- BRITISH MUSEUM, London, England.
Guide to the mineral gallery.
Students' index to the collection of minerals.
Introduction to the study of minerals.
Introduction to the study of rocks.
Introduction to the study of meteorites.
List of the natural history publications, (exch.)
- BROOKLYN INSTITUTE, Brooklyn, N. Y.
7th year book (2 copies), 1894-95.
Prospectus for 1895-96, (exch.)
- BROOKLYN LIBRARY, Brooklyn, N. Y.
38th annual report, (exch.)
- BROWN UNIVERSITY, Providence, R. I.
Historical catalogue, 1764-94.
Catalogue, 1895-96, (exch.)
- BUENOS AIRES MUSEO NACIONAL, Buenos Aires, Argentine.
Anales, vol. 4, (exch.)
- BUDAPEST MAGYAR NEMZETI MUSEUM, Budapest, Hungary.
Termésgetrajzi Füzetek, vol. 19, parts 1-2, (exch.)
- BUFFALO LIBRARY, Buffalo, N. Y.
Annual report, nos. 52-60, 1888-96.
Laws.
Finding list, parts 1-3.
Additions, new series, nos. 48-78.
Index to classified subject catalogue, (exch.)
- BUFFALO SOCIETY OF NATURAL SCIENCES, Buffalo, N. Y.
Bulletin, vols. 1-4, vol. 5, nos. 1-4.
Annual reports, 1895, (exch.)
- BUTCHERS AND PACKERS MAGAZINE PUBLISHING CO., St. Louis, Mo.
Butchers & Packers Magazine, current nos.
- BUTLER, A. W. Brookville, Ind.
Bulletins, Brookville Society of Natural History, 1-3.
10 pamphlets and reprints, by the donor.
- CALIFORNIA ACADEMY OF SCIENCES, San Francisco, Cal.
Proceedings, vol. 5, parts 1-2, (exch.)

- CALIFORNIA STATE MINING BUREAU, San Francisco, Cal.
Bulletin, nos. 7-8, (exch.)
- CALIFORNIA UNIVERSITY, Berkeley, Cal.
Bulletin of the Department of Geology, vol. 1, nos. 12-13; vol. 2, no. 1, (exch.)
- CALIFORNIA AGRICULTURAL EXPERIMENT STATION, Berkeley, Cal.
Bulletin, current nos.
Report, 1894-95, (2 copies.)
- CAMBRIDGE MUSEUM OF ZOOLOGY, Cambridge, England.
30th annual report of the Museums and Lecture Rooms Syndicate, (exch.)
- CAMBRIDGE MUSEUM OF COMPARATIVE ZOOLOGY, Cambridge, Mass.
Bulletin, vol. 29, nos. 1-6, (exch.)
- CAMBRIDGE PUBLIC LIBRARY, Cambridge, Mass.
Bulletin, vol. 1, no. 2.
Annual report of trustees, 1895, (exch.)
- CANADA DEPARTMENT OF MARINE AND FISHERIES, Ottawa, Canada.
Annual reports, 26th and 27th, 1893-94.
Report of the Dominion Fishery Commission on the fisheries of Ontario, 1893.
Report of the British Columbia Fishery Commission, 1892.
- CANADA GEOLOGICAL SURVEY, Ottawa, Canada.
Palaeozoic fossils, vol. 3, parts 1-2.
Summary report of the Geological Survey Department, 1895.
List of publications, (exch.)
- CANADIAN INSTITUTE, Toronto, Ontario.
Transactions, vol. 4, part 2.
Archaeological report, 1894-95.
The functions of a great university, (exch.)
- CANEBAKE EXPERIMENT STATION, Uniontown, Ala.
Bulletin, nos. 1-18.
- CARPENTER, PHILIP P. Montreal, Canada.
Catalogue of the collection of Mazatlan shells.
- CARUANA-GATTO, ALFREDO, Valetta, Malta.
4 pamphlets.
- CASE LIBRARY, Cleveland, O.
Short title-list of books on engineering.
Bibliography of card games.
Catalogue of Cleveland Library Association.
Proceedings Cleveland Academy of Natural Science.
Treatise on artificial propagation of fish, (exch.)
- CASE SCHOOL OF APPLIED SCIENCE, Cleveland, O. •
Catalogue, 1894-95, 1895-96, (exch.)
- CENTRAL ART ASSOCIATION OF AMERICA, Chicago.
Arts for America, current nos.
- CHAMBÉSY L'HERBIER BOISSIER, Geneva, Switzerland.
Bulletin, 1896, (exch.)
- CHAPMAN, FRANK M., New York.
5 ornithological papers.
- CHERRIE, G. K., Field Columbian Museum.
Anales del Instituto Físico—Geográfico Nacional de Costa Rica, 1892.
Exploraciones zoológicas efectuadas en el Valle del Río Naranjo, 1893.
- CHICAGO ACADEMY OF SCIENCES, Chicago.
38th annual report.
Bulletin, vol. 2, no. 2.
Bulletin no. 1 of the Geological and Natural History Survey.
Constitution and by-laws.
Annual address, 1878.
Historical sketch of the Academy.
2 pamphlets, (exch.)

- CHICAGO CYCLE TRADE JOURNAL, Chicago.
Chicago Cycle Trade Journal, current nos.
- CHICAGO LAW SCHOOL, Chicago.
Announcement, 1896-97.
- CHICAGO PUBLIC LIBRARY, Chicago.
Bulletin, nos. 28-35, (exch.)
- CHURCH HOME FOR ORPHANS, Chicago.
4th annual report.
- CINCINNATI HOUSE OF REFUGE, Cincinnati, O.
45th annual report, (exch.)
- CINCINNATI MUSEUM ASSOCIATION, Cincinnati, O.
15th annual report, 1895.
2 catalogues, (exch.)
- CINCINNATI SOCIETY OF NATURAL HISTORY, Cincinnati, O.
Journal, vol. 18, nos. 1-4; vol. 19, no. 1, (exch.)
- CLARKE, ROBERT, Cincinnati, O.
The Mound-Builders.
The antiquities of the State of Ohio, (exch.)
- CLAY RECORD PUBLISHING CO., Chicago.
Clay Record, current nos.
- CLEVELAND PUBLIC LIBRARY, Cleveland, O.
27th annual report, 1895.
The Open Shelf, vol. 2, no. 4, (exch.)
- COBB'S LIBRARY, Chicago.
28th annual catalogue, 1894-95.
- COHEN, PROF. E. (the author), Greifswald, Prussia.
Ueber eine nordlich von Pretoria in granit gelegene salzpfanne.
Verzeichniss der meteoriten in der greifswalder sammlung.
4 pamphlets, (exch.)
- COLLIERY ENGINEER CO., Scranton, Pa.
The Colliery Engineer, current nos.
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Bulletin, current nos.
- COLORADO SCIENTIFIC SOCIETY, Denver, Colo.
The nickel deposits near Riddles, Oregon.
On the occurrence of Uranite.
On Pearceite. The San Miguel formation.
2 treatises, by H. B. Patton.
The dyke on the Columbia vein in Ward District, Boulder Co., Colo.,
(exch.)
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- COLORADO STATE SCHOOL OF MINES, Golden, Colo.
Catalogues, 1894-96, (exch.)
- COLUMBIA UNIVERSITY, New York.
Annual report, 1895.
Catalogue, 1895-96.
University bulletin, no. 14, (exch.)
- COMSTOCK, PROF. FRANK M., Cleveland, O.
Composition of the American sulphur petroleum, by C. F. Mabery.
- CONNECTICUT AGRICULTURAL EXPERIMENT STATION, New Haven, Conn.
10th annual report.
Bulletin, current nos.
- COOK, PROF. O. F., Huntington, N. Y.
Annals of the New York Academy of Sciences, vol. 9, (exch.)

- COOPER UNION FOR THE ADVANCEMENT OF SCIENCE AND ART,
New York.
37th annual report, (exch.)
- NATURHISTORISKE FORENING, Kjöbenhavn, Denmark.
Videnskabelige meddelelser, 1895, (exch.)
- CORNELL UNIVERSITY, Ithaca, N. Y.
Catalogue of the President White Library, 3 parts.
Catalogue of the Rhaeto-Romanic collection.
Library bulletin of Cornell University, vols. 1 and 2 and current nos.
Register. 1894, (exch.)
- CORNELL UNIVERSITY AGRICULTURAL EXPERIMENT STATION,
Ithaca, N. Y.
Bulletin, current nos.
- COSTA RICA INSTITUTO FISICO-GEOGRAPHICO NACIONAL, San Josè,
Costa Rica.
Anales, vol. 6, 1893, (exch.)
- COSTA RICA MUSEO NACIONAL, San Josè, Costa Rica.
Informe, 1896, (exch.)
- CUDMORE, P. (the author), Faribault, Minn.
The battle of Clontarf.
- CURTIS, WILLIAM E. (the author), Washington, D. C.
Venezuela.
Report on the Columbian Historical Exposition, Madrid (2 copies).
- DALL, WM. H. (the author), Washington, D. C.
Partial list of charts, maps and publications relative to Alaska, (exch.)
- DARTMOUTH COLLEGE, Hanover, N. H.
Catalogue, 1895-96, (exch.)
- DAVENPORT, GEO. E. (the author), Medford, Mass.
Filices Mexicana, (exch.)
- DAWSON, G. J. & CO., San Salvador, San. Sal.
El porvenir de Centro-America, vol. 1, nos. 5-33.
- DAWSON, SIR J. WILLIAM (the author), Ottawa, Canada.
The animal nature of Eozoön.
On collection of Tertiary plants.
On specimens in the Peter Redpath Museum of McGill University.
- DELAWARE COLLEGE AGRICULTURAL EXPERIMENT STATION,
Newark, Del.
Bulletin, current nos.
- DENVER PUBLIC LIBRARY, Denver, Colo.
Hand-book.
Catalogue of periodicals.
Bulletin vols. 1-5 and current nos.
Finding list, (exch.)
- DETROIT MUSEUM OF ART, Detroit, Mich.
Annual reports, 1892-96.
Circular of instruction, 1895-96.
Historical report, 1891, (exch.)
- DETROIT PUBLIC LIBRARY, Detroit, Mich.
15th report of the Library Commission, 1895, (exch.)
- DORSEY, GEO. A. (the author), Cambridge, Mass.
History of the study of anthropology at Harvard Univ., (exch.)
- DREW THEOLOGICAL SEMINARY, Madison, N. J.
Alumni record 1869-95, (exch.)
- DU BOIS, CONSTANCE G., Waterbury, Conn.
Asa Gray Bulletin, current nos., (exch.)
- DURAND, PROF. E. J. (the author), Ithaca, N. Y.
Some rare myxomycetes of Central New York.
Botanical notes, (exch.)

- EDGREN, A. H. (the author), Lincoln, Neb.
5 pamphlets, (exch.)
- EDINBURGH MUSEUM OF SCIENCE AND ART, Edinburgh, Scotland.
List of additions to the art and industrial divisions 1894, (exch.)
- EDINBURGH ROYAL SOCIETY, Edinburgh, Scotland.
Proceedings, vols. 19 and 20, (exch.)
- EDWARDS, B. & CO., Chicago.
The American Contractor, current nos.
- EKATERINBURG SOCIÉTÉ OURALIENNE D'AMATEURS DES SCIENCES NATURELLES, Ekaterinburg, Russia in Asia.
Bulletin, vol. 15, no. 1-2.
Bulletin, vol. 14, no. 4, (exch.)
- ELECTRIC RAILWAY GAZETTE, New York.
Electric car tests, by H. S. Hering.
- ELLIOT, D. G., Field Columbian Museum.
In memoriam George N. Lawrence, by the donor.
The life and services of J. J. Audubon, by the donor.
Publishers' catalogues.
Reports of the Council of the Geol. Soc. of London, 1893-94.
- ELISHA MITCHELL SCIENTIFIC SOCIETY, Chapel Hill, N. C.
Journal 1889, pt. 1; 1892, pt. 1; 1893, pts. 1 and 2; 1894, pts. 1 and 2, (exch.)
- ELLIS, J. B. (the author), Newfield, N. J.
5 reprints on American fungi, (exch.)
- ERNST, DR. A., Caracas, Venezuela.
Upper Orinoco vocabularies, by the donor.
Revista científica de la Universidad Central de Venezuela, vols. 1 and 2.
Gaceta Medica de Caracas, vol. 1, nos. 1-24.
La Exposicion Nacional de Venezuela en 1883, (exch.)
- ESSEX INSTITUTE, Salem, Mass.
A partial catalogue of publications.
Historical collections, vol. 31, Nos. 7-24, (exch.)
- EVANS, A. W. (the author), New Haven, Conn.
4 pamphlets on Hepatica, (exch.)
- EVANS, SIR JOHN (the author), Hertfordshire, England.
The stone age in Hertfordshire.
The bronze age, (exch.)
- FEWKES, J. WALTER (the author), Boston, Mass.
The Oraibi flute altar.
The prehistoric culture of Tusayan.
- FIELD, MARSHALL, Chicago.
Animal locomotion plates and text, 2 vols. by E. Muybridge.
Animal locomotion; the Muybridge work at the University of Pennsylvania.
- FIELD COLUMBIAN MUSEUM.
Purchases:
104 vols. for General Library.
36 vols. for Department of Anthropology.
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22 vols. for Department of Zoology.
- FISCHER, MORITZ, Field Columbian Museum.
Princeton College Bulletin, vols. 4-7, incomplete.
4 bulletins Alabama Agric. Exp. Station.
15 pamphlets.

- FLORIDA AGRICULTURAL EXPERIMENT STATION, Lake City, Fla.
Bulletin, nos. 20-35, incl.
- FOREST AND STREAM PUB. CO., Chicago.
Forest and Stream, Rod and Gun, current nos.
- FÖRSTEMANN, DR. ERNST W. (the author), Dresden, Germany.
Zur entzifferung der Mayahandschriften.
Verzeichnis der schriften.
Die Zeitperioden der Mayas.
Die Mittelamerikanische Tonalamatl, (exch.)
- FOSTER, DR. C. LE NEVE, London, England.
First annual report upon the mineral industry of Great Britain and Ireland.
- FRANKLIN INSTITUTE, Philadelphia, Pa.
The Franklin Institute, 1824-94, (sketch).
Charter and by-laws.
Journal, current nos., 1896.
Index, 1888-95, (exch.)
- FRANZ-JOSEPHS UNIVERSITÄT, Czernowitz, Hungary.
Übersicht der akademischen behörden.
Verzeichniß der öffentlichen vorlesungen, 1896-97, (exch.)
- GATSCHET, ALBERT S. (the author), Washington, D. C.
Collection of pamphlets, mostly reprints, (exch.)
- GEOLOGICAL SOCIETY OF AMERICA, Rochester, N. Y.
Bulletin, vol. 7, current nos., (exch.)
- GEORGIA GEOLOGICAL SURVEY, Atlanta, Ga.
Bulletins, nos. 1 and 2, (exch.)
- GEORGIA UNIVERSITY, Athens, Ga.
Annual announcement.
Catalogue, 1894-96.
The Engineering Soc. Annual, vols. 1 and 2, (exch.)
- GOLDEN GATE PARK MUSEUM, San Francisco, Cal.
24th annual report of San Francisco Board of Park Commissioners, (exch.)
- GRAY HERBARIUM, Cambridge, Mass.
Contributions, new series, nos. 1-9, incl., (exch.)
- GREEN, SAMUEL S. (the author), Worcester, Mass.
The Scotch-Irish in America.
- GREENE, PROF. EDW. L. (the author), Washington, D. C.
Pittonia, vol. 3, current nos., (exch.)
- GREGORY, JAMES R. (the author), Kensington, England.
Catalogue of collection of meteorites, (exch.)
- GROLIER CLUB, New York.
Catalogue of exhibition illustrative of lithography, 1796-1896, (exch.)
- GROSSHERZOGICHE HOFBIBLIOTHEK, Darmstadt, Germany.
Zugangs-verzeichnis 1891, (exch.)
- HAMILTON ASSOCIATION, Hamilton, Canada.
Journal and proceedings, 1889-95.
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 Proceedings and transactions, 2nd series, vol. 1.
 Summary of original articles in the Canadian Naturalist, (exch.)

- ROYAL SOCIETY OF QUEENSLAND, Brisbane, Queensland.
Proceedings, vol. 11, pt. 2, (exch.)
- RUTLEY, PROF. FRANK (the author), London, England.
Granites and greenstones, (exch.)
- RUTTER, CLOUDSLEY (the author), San Francisco, Cal.
Notes on fresh water fishes, Pacific slope.
- ST. LOUIS ACADEMY OF SCIENCE, St. Louis, Mo.
Transactions, vol. 7, nos. 1-8, (exch.)
- ST. LOUIS PUBLIC LIBRARY, St. Louis, Mo.
Annual report of the Board of Directors, 1894-95, (exch.)
- ST. LOUIS UNIVERSITY, St. Louis, Mo.
Catalogue, 1894-95, 1895-96, (exch.)
- ST. PAUL PUBLIC LIBRARY, St. Paul, Minn.
14th annual report.
Finding list, 2d supplement, (exch.)
- SALEM PUBLIC LIBRARY, Salem, Mass.
Bulletin, vol. 3, nos. 1-11, (exch.)
- SAN FRANCISCO FREE PUBLIC LIBRARY, San Francisco, Cal.
Report of Board of Trustees, 1895, (exch.)
- SAN FRANCISCO MERCANTILE LIBRARY ASSOCIATION, San Francisco, Cal.
43d annual report, 1895, (exch.)
- SANTA BARBARA SOCIETY OF NATURAL HISTORY, Santa Barbara, Cal.
Bulletin, vol. 1, current nos., (exch.)
- SÃO PAULO MUSEU PAULISTA, São Paulo, Brazil.
Revista, vol. 1, (exch.)
- SCHMELZ, J. D. E. (the author), Leiden, Netherlands.
Das schwirrholtz, with 2 other pamphlets, (exch.)
- SHEAR, C. L., (the author), Lincoln, Neb.
On the relation between ascomycetes and basidiomycetes, (exch.)
- SHIPPING AND COMMERCIAL LIST CO., New York.
Shipping and commercial list and N. Y. price current, centennial edition.
- SIMMS, S. C., Field Columbian Museum.
Prospectus, Marionette Mining Co.
Collection of 15 books and pamphlets.
- SKIFF, F. J. V., Field Columbian Museum.
Transactions, American Institute of Mining Engineers, vol. 24.
Transactions, Atlanta & Pittsburg Meeting, (1895-'96). List of officers, members, etc., 1896.
Proceedings, New England Historical and Genealogical Society, Jan. 1896.
Official Catalogue, Atlanta Exposition, 1895.
Cripple Creek & Colorado Springs, by Warren & Stride.
Annual report, 16th, of the Art Institute of Chicago.
Hunting and fishing in Florida, by C. B. Cory.
Meddelanden från et besök vid världs expositionen, Chicago, by E. G. Odelstjerna.
Prehistoric ruins of Copan, Honduras.
- SMITH, PROF. JARED G., (the author), St. Louis, Mo.
North American species of sagittaria and lophotocarpus.
Notes and observations on new or little known species, (exch.)
- SMITHSONIAN INSTITUTION, Washington, D. C.
Smithsonian contributions to knowledge, nos. 980 and 989.
An account of the Smithsonian Institution.
The exhibit of Smithsonian Institution at the Cotton States Exhibition, Atlanta.
Smithsonian miscellaneous collections, nos. 971 and 972.
List of publications of the Institution.
Report of the U. S. National Museum, 1893.

- List of institutions and foreign and domestic libraries to which it is desired to send future publications of the U. S. National Museum.
- Proceedings, vol. 17, (1894).
Bulletin, no. 48, (exch.)
- SOCIEDAD CIENTIFICA ANTONIO ALZATE, Mexico, Mex.
Memorias y Revista, vol. 8, nos. 5, 8, 9 and 12, vol. 9, current nos., (exch.)
- SOUTH CAROLINA AGRICULTURAL EXPERIMENT STATION, Fort Hill, S. C.
Bulletin, no. 25.
- SOUTH DAKOTA AGRICULTURAL COLLEGE AND EXPERIMENT STATION, Brookings, S. D.
Bulletin, nos. 1-7, 9-11, 14 and 17-46 inclusive.
- SOUTHERN CALIFORNIA SCIENCE ASSOCIATION, Los Angeles, Cal.
List of members, etc., 1894-95.
Publications, tidal evolution, (exch.)
- SPEARS, JOHN R., (the author), New York.
The gold diggings of Cape Horn, (exch.)
- SPRINGFIELD CITY LIBRARY ASSOCIATION, Springfield, Mass.
Library bulletin, current nos., (exch.)
- STATEN ISLAND NATURAL SCIENCE ASSOCIATION, Staten Island, N. Y.
Proceedings, vols. 1-3, 4 no. 12, 5 current nos., (exch.)
- STEERE, J. B., (the author), Ann Arbor, Mich.
The origin and meaning of animal groups, (typewritten).
- STEIERMARK NATURWISS VEREIN, GRAZ, Steiermark, Austria.
Mittheilungen, 1895, (exch.)
- STEINERT, MORRIS, (the author), New Haven, Conn.
The M. Steinert collection of keyed and stringed instruments.
- STORRS AGRICULTURAL EXPERIMENTAL STATION, Storrs, Conn.
Annual report 1st-8th, (1888-'95).
Bulletin, No. 1-17 inclusive.
- STREET RAILWAY PUBLISHING CO., Chicago.
Street Railway Journal, current nos.
- SUTRO LIBRARY, San Francisco, Cal.
Publications of the Historical Society of Southern California, vol. 2 part 1.
A. Sutro's letter to the Regents of the University of California, (9 copies).
Set of R. R. pamphlets.
California Academy of Science, Occasional papers, vol. 4, (duplicate), (exch.)
- SWISS COMMISSION, WORLD'S COLUMBIAN EXPOSITION.
20 reports on the World's Columbian Exposition.
- SYDERE, A. H., Toronto, Ontario.
Collection of Canadian Government reports.
- SYRACUSE UNIVERSITY, Syracuse, N. Y.
Catalogue, 1895-96.
Special bulletin, 1896, (exch.)
- TACOMA ACADEMY OF SCIENCE, Tacoma, Wash.
Proceedings, 1892, (extract.)
Illustrated guide book to Mount Tacoma.
- TAUNTON PUBLIC LIBRARY, Taunton, Mass.
30th annual report of the trustees.
Additions, no. 3, (ex h.)
- TENNESSEE UNIVERSITY AGRICULTURAL EXPERIMENT STATION, Knoxville, Tenn.
Annual report, 1st and 3rd-8th inclusive.
Bulletin, vols. 1-8, (incomplete).
- TEXAS AGRICULTURAL EXPERIMENT STATION, P. O. College Station, Texas.
8th annual report.
Bulletin, current nos.

- THOMPSON, EDW. H. (the author), Merida, Yucatan.
The ancient structures of Yucatan, (exch.)
- TOLEDO PUBLIC LIBRARY, Toledo, O.
Annual report, 18th, 1891.
Catalogue, (1886).
Bulletin, no. 2-6 and 8-12, (exch.)
- TOOKER, W. W. (the author), Sag Harbor, L. I.
John Eliot's Cockenoe-de-Long Island, with 5 other pamphlets, (exch.)
- TORREY BOTANICAL CLUB, Lancaster, Pa.
Bulletin, current nos., (exch.)
- TRINITY COLLEGE, Hartford, Conn.
Catalogue, 1895; 1895-'96, (with addresses of surviving Alumni), (exch.)
- TÜBINGEN, UNIVERSITY LIBRARY, Tübingen, Württemberg, Germany.
Festgabe, (exch.)
- TUFTS COLLEGE, Tufts College, Mass.
Tufts college studies, nos. 1-4 inclusive, (exch.)
- U. S. AGRICULTURAL DEPARTMENT, Washington, D. C.
List of publications 1841-'95.
Annual reports, 1867, '68-'77-'78-'84-'85 and '88 to date.
Index to reports, 1837-'93.
Bulletins and circulars, current nos. (exch.)
- U. S. AMERICAN REPUBLICS BUREAU, Washington, D. C.
Annual reports, 1891-'95.
Bulletins, nos. 40-41, 53, 58, 60, 64.
Monthly bulletin, vol. 1, vol. 2, no. 1, vol. 3 and vol. 4, no. 2, (exch.)
- U. S. EDUCATION BUREAU, Washington, D. C.
Report, vol. 2, (1892-'93).
Education in Alaska.
Education at the World's Columbian Exposition.
Notes on education at the Columbian Exposition, (exch.)
- U. S. ETHNOLOGY BUREAU, Washington, D. C.
Annual report, 11th, 12th and 13th.
Contributions to North American ethnology, vol. 9.
Map of linguistic stock of North American Indians.
The American Race, by Brinton.
Travels in Central America, by McRelet, (exch.)
- U. S. FISH AND FISHERIES COMMISSION, Washington, D. C.
Commissioner's report, 1889-'92, (2 vols.)
Bulletins, vols. 8-15 inclusive, 1895, (exch.)
- U. S. GEOLOGICAL SURVEY, Washington, D. C.
Geological atlas of the United States, folios 1-20.
Annual report, 15th and 16th, pts. 2-4.
Bulletin, 123-26, 128-29 and 131-34.
36 atlas sheets.
Mineral products of the U. S., 1886-95, (exch.)
- U. S. GOVT. PRINTING OFFICE, Washington, D. C.
Monthly catalogue of publications, Jan.-Aug., 1895.
1st annual report.
Check-list of public documents, 2nd ed., (2 copies).
Congressional documents, 8 vols.
Narrative of 2d Arctic exp., by C. F. Hall.
- U. S. INTERIOR DEPARTMENT, Washington, D. C.
Abstract of the 11th census, 1890, (6 copies).
Reports of the 11th census, 15 vols.
Report regarding the receipt of public documents.
U. S. mining laws.
Annual reports of the Commissioner of Indian Affairs, 1873-1895, (except 1879).
Annual reports of the Bd. of Indian Commissioners, 1871-1895 incl., (except 1872, '73, '77, '80 and '91), (exch.)

- U. S. INTERSTATE COMMERCE COMMISSION, Washington, D. C.
4th-9th annual reports.
Statistics of railways, 1st-7th annual reports.
- U. S. MILITARY ACADEMY, West Point, N. Y.
Official register of officers and cadets, June, 1895.
- U. S. MINT BUREAU, Washington, D. C.
21st and 22d annual reports of the Director of the Mint, 2 vols.
Reports upon productions of the precious metals for 1891-94, 4 vols.
- U. S. STATE DEPARTMENT, Washington, D. C.
U. S. Consular reports.
U. S. Consular special report, vol. 6.
U. S. Consular report, current nos.
Title and index to vols. 30 and 31.
Review of the world's commerce.
Commercial relations of the U. S., 1894-95, vols. 1 and 2, (exch.).
- U. S. SURGEON GENERAL'S OFFICE, Washington, D. C.
Index catalogue, 2d ser., vol. 1, (exch.).
- U. S. WAR DEPARTMENT, Washington, D. C.
Index of periodicals, etc.
Mexican bibliography, pts. 1-3.
Report of the Secretary of War, 1875-94, 55 vols.
- UPSALA KONGLIGA UNIV. BIBLIOTEKET, Upsala, Sweden.
Bulletin of the Geol. Institution of the Univ., vol. 1 and vol. 2, pt. 1.
57 publications, chiefly pamphlets, (exch.)
- UTAH AGRICULTURAL COLLEGE EXP. STATION, Logan, Utah.
Bulletin, current nos.
- VALENTINE, PHILIPP J. J. (the author), New York.
Analysis of pictorial text on 2 Palenque tablets, pt. 2.
- VASSAR BROTHERS INSTITUTE, Poughkeepsie, N. Y.
Transactions, vols. 1-6 (except vol. 3, pt. 2), (exch.)
- VERMONT AGRIC. STATION, Montpelier, Vt.
Eighth annual report, 1894.
- VERMONT AGRIC. EXP. STATION, Burlington, Vt.
Bulletin, current nos.
- VIRGINIA AGRIC. EXP. STATION, Blacksburg, Va.
Bulletin, current nos.
- VIRGINIA UNIVERSITY, Charlottesville, Va.
Alumni bulletin, vol. 2, no. 3.
Annals of mathematics, vol. 10, nos. 1-5, (exch.)
- WABASH COLLEGE, Crawfordsville, Ind.
Catalogue, 1894-95, 1895-96.
Triennial catalogue of alumni, etc., 1895, (exch.).
- WAGNER FREE INSTITUTE OF SCIENCE, Philadelphia, Pa.
Transactions, vol. 3, vol. 4, pt. 1.
Announcement, 1894, (exch.)
- WARD, ROWLAND (the author), London, England.
Horn measurements and weights of the great game of the world.
- WARREN, PROF. B. H. (the author), Harrisburg, Pa.
The varying hare, with 2 other pamphlets.
Bulletin, no. 6 of Div. of Econ. Zool., Dept. of Agric., Pa., (exch.)
- WASHINGTON ANTHROPOLOGICAL SOCIETY, Washington, D. C.
American Anthropologist, current nos., (exch.)
- WASHINGTON BIOLOGICAL SOCIETY, Washington, D. C.
Proceedings, vol. 10, pp. 1-64, (exch.)
- WASH. STATE AGRIC. COLLEGE AND SCHOOL OF SCIENCE, Pullman, Wash.
Bulletin, nos. 15 and 17.

- WATERTOWN FREE PUBLIC LIBRARY, Watertown, Mass.
28th annual report, 1895, (exch.)
- WELLESLEY COLLEGE, Wellesley, Mass.
Calendar, 1895-96, (exch.)
- WELLS, LIEUT. ROGER, JR., (the author), Washington, D. C.
English-Eskimo and Eskimo-English vocabularies.
Vocabulary of the Guaivo or Guahibo language, (typewritten).
- WESLEYAN UNIVERSITY, Middletown, Conn.
Annual catalogue, 1895-96.
Wesleyan University, Bulletin no. 18, (exch.)
- WEST VIRGINIA AGRIC. EXPERIMENT STATION, Morgantown, W. Va.
Bulletin, current nos.
- WESTERN ELECTRICAL CO., Chicago.
Western Electrician, current nos.
- WESTERN RESERVE UNIVERSITY, Cleveland, O.
Catalogue, 1895-96.
- WESTERN UNION TELEGRAPH CO., New York.
Annual report, 1895.
- WHITMAN, PROF. C. O. (the author), Chicago.
Biological lectures, 3 vols.
- WIEN K. K. HOFBIBLIOTHEK, Wien, Austria,
Instructionen für die katalogs arbeiten, with another pamphlet, (exch.)
- WIEN K. K. HOFMUSEUM, Wien, Austria.
Jahresbericht, 1895, (2 copies), (exch.)
- WILEY, HENRY (the author), New Bedford, Mass.
Enumeration of the lichens found in New Bedford.
Notes on some North American species of *Parmelia*, (exch.)
- WILLIAMS COLLEGE, Williamstown, Mass.
Catalogue, 1895-96.
President's report, 1895-96.
William's College catalogue of north polar stars, (exch.)
- WINDSOR & KENFIELD PUBLISHING CO., Chicago.
Brick, current nos.
Street Railway Review, current nos.
- WISCONSIN STATE HISTORICAL SOCIETY, Madison, Wis.
Historical collections, vol. 13.
Proceedings, 43rd annual meeting, (exch.)
- WISCONSIN AGRIC. EXP. STATION, Madison, Wis.
12th annual report.
Bulletin, current nos.
- WISCONSIN, UNIVERSITY Madison, Wis.
Bulletins: Economic series, vol. 1, nos. 1 and 2.
Bulletins: Engineering series, vol. 1, nos. 1-6.
Bulletins: Science series, vol. 1, nos. 1-4, (exch.)
- WORCESTER FREE PUBLIC LIBRARY, Worcester, Mass.
36th annual report.
Second supplement to catalogue.
Additions to the library, current nos., (exch.)
- WORCESTER POLYTECHNIC INSTITUTE, Worcester, Mass.
26th annual catalogue, 1896, (exch.)
- WORLD'S COLUMBIAN COMMISSION, Washington, D. C.
Final report of Executive Committee on Awards.
Supplement, final report.
- WYOMING UNIVERSITY AGRIC. COLLEGE AND EXP. STATION, Cheyenne, Wyo.
Fifth annual report, 1895.
Bulletin, current nos.

WYOMING UNIVERSITY, Laramie, Wyo.

Petroleum series, bulletin no. 1.

Catalogue, 1895-96, (exch.)

YALE UNIVERSITY, New Haven, Conn.

Report, 1895.

Catalogue, 1895-96, (exch.)

ZEISS, CARL, Jena, Germany.

Set of catalogues, (5).

ZULAUF & CO. G., Zürich, Switzerland.

1 pamphlet, (reprint).

Set of catalogues.

SECTION OF PHOTOGRAPHY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

ARMOUR, A. V., Chicago.

24 negatives of Yucatan ruins, (transferred from Department of Anthropology).

BALTIMORE & OHIO R. R.

20 negatives of engines, (transferred from Division of Transportation).

FIELD COLUMBIAN MUSEUM.

Negatives made by Section of Photography from April 1, 1895, to May 1, 1896, to illustrate publications, lectures, newspaper articles, etc., 607.

Made by O. C. Farrington:

72 views of mines, peoples, etc.—Mexico.

17 geological views—Maine and Massachusetts.

1 negative of glacial drift—Drainage Canal, Cook County, Ill.

1 negative of glacial boulder pocket.

Made by C. F. Millspaugh:

45 views of ruins, trees, etc.—Yucatan.

11 views along Drainage Canal—Cook Co., Ill.

12 views in and around Clarksdale, Miss.

56 negatives of trees—Mt. Carmel, Ill.

7 views of forest trees, etc.—Mississippi.

6 negatives of trees—Blue Island, Ill.

Made by E. P. Allen:

44 views along Drainage Canal—Cook Co., Ill.

Purchases:

6 portraits of Alaskan Eskimo, male and females, (purchased from Dr. Franz Boas).

GREEN, C. H., Denver, Col.

32 negatives of mummies, baskets, caves, etc., (transferred from Department of Anthropology).

INGLIS, JAMES, Chicago.

11 negatives of Egyptian scenes and mummies.

MILLSPAUGH, C. F., Field Columbian Museum.

3 views of Yucatan ruins in World's Columbian Exposition Grounds.

MOOREHEAD, WARREN K., Columbus, Ohio.

67 views among the Indian mounds of Ohio, (transferred from Department of Anthropology).

SOUGERSON, H. E., Chicago.

38 negatives of views in Museum made to illustrate Museum article in "The Interior," (transferred from Department of Anthropology).

STEERE, J. B., Ann Arbor, Mich.

24 negatives of mammals, skulls, etc., (transferred from Department of Zoology).

THOMPSON, EDWARD H., Merida, Yucatan.

16 negatives of ruins in and around Merida, Yucatan.

U. S. BUREAU OF AMERICAN REPUBLICS, Washington, D. C.

247 negatives of original Columbus documents, (transferred from Department of History).

ARTICLES OF INCORPORATION.

STATE OF ILLINOIS.

DEPARTMENT OF STATE.

WILLIAM H. HINRICHSSEN, *Secretary of State*:

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

Whereas, a Certificate duly signed and acknowledged having been filed in the office of the Secretary of State, on the 16th day of September, A. D. 1893, for the organization of the COLUMBIAN MUSEUM OF CHICAGO, under and in accordance with the provisions of "An Act Concerning Corporations," approved April 18, 1872, and in force July 1, 1872, and all acts amendatory thereof, a copy of which certificate is hereto attached.

Now, therefore, I, William H. Hinrichsen, Secretary of State of the State of Illinois, by virtue of the powers and duties vested in me by law, do hereby certify that the said COLUMBIAN MUSEUM OF CHICAGO, is a legally organized Corporation under the laws of this State.

In Testimony Whereof, I hereto set my hand and cause to be affixed the great Seal of State. Done at the City of Springfield, this 16th day of September, in the year of our Lord one thousand eight hundred and ninety-three, and of the Independence of the United States the one hundred and eighteenth.



W. H. HINRICHSSEN,

Secretary of State.

TO HON. WILLIAM H. HINRICHSSEN,

SECRETARY OF STATE:

SIR:

We, the undersigned Citizens of the United States, propose to form a corporation under an act of the General Assembly of the State of Illinois, entitled, "An Act Concerning Corporations" approved April 18, 1872, and all acts amendatory thereof; and that for the purposes of such organization we hereby state as follows, to wit:

1. The name of such corporation is the "COLUMBIAN MUSEUM OF CHICAGO."

2. The object for which it is formed is for the accumulation and dissemination of knowledge, and the preservation and exhibition of objects illustrating Art, Archeology, Science, and History.

3. The management of the aforesaid museum shall be vested in a Board of FIFTEEN (15) TRUSTEES, five of whom are to be elected every year.

4. The following named persons are hereby selected as the Trustees for the first year of its corporate existence:

Ed. E. Ayer, Charles B. Farwell, George E. Adams, George R. Davis, Charles L. Hutchinson, Daniel H. Burnham, John A. Roche, M. C. Bullock, Emil G. Hirsch, James W. Ellsworth, Allison V. Armour, O. F. Aldis, Edwin Walker, John C. Black and Frank W. Gunsaulus.

5. The location of the Museum is in the City of Chicago, County of Cook, and State of Illinois.

(Signed)

George E. Adams, C. B. Farwell, Sidney C. Eastman, F. W. Putnam, Robert McMurdy, Andrew Peterson, L. J. Gage, Charles L. Hutchinson, Ebenezer Buckingham, Andrew McNally, Edward E. Ayer, John M. Clark, Herman H. Kohlsaas, George Schneider, Henry H. Getty, William R. Harper, Franklin H. Head, E. G. Keith, J. Irving Pearce, Azel F. Hatch, Henry Wade Rogers, Thomas B. Bryan, L. Z. Leiter, A. C. Bartlett, A. A. Sprague, A. C. McClurg, James W. Scott, Geo. F. Bissell, John R. Walsh, Chas. Fitzsimons, John A. Roche, E. B. McCagg, Owen F. Aldis, Ferdinand W. Peck, James H. Dole, Joseph Stockton, Edward B. Butler, John McConnell, R. A. Waller, H. C. Chatfield-Taylor, A. Crawford, Wm. Sooy Smith, P. S. Peterson, John C. Black, Jno. J. Mitchell, C. F. Gunther, Geo. R. Davis, Stephen A. Forbes, Robert W. Patterson, Jr., M. C. Bullock, Edwin Walker, Geo. M. Pullman, William E. Curtis, James W. Ellsworth, William E. Hale, Wm. T. Baker, Martin A. Ryerson, Huntington W. Jackson, N. B. Ream, Norman Williams, Melville E. Stone, Bryan Lathrop, Eliphalet W. Blatchford, Philip D. Armour.

STATE OF ILLINOIS, }
COOK COUNTY. } ss.

I, G. R. MITCHELL, a NOTARY PUBLIC in and for said County, do hereby certify that the foregoing petitioners personally appeared before me and acknowledged severally that they signed the foregoing petition as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 14th day of September, 1893.

G. R. MITCHELL,

(Seal)

NOTARY PUBLIC, COOK COUNTY, ILL.

CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the corporate members held the 25th day of June, 1894, the name of the COLUMBIAN MUSEUM was changed to FIELD COLUMBIAN MUSEUM. A certificate to this effect was filed June 26, 1894, in the office of the Secretary of State for Illinois.

AMENDED BY-LAWS.

ARTICLE I.

MEMBERS.

SECTION 1. Members shall be of five classes, Annual Members, Corporate Members, Life Members, Patrons and Honorary Members.

SEC. 2. Annual Members shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of ten dollars (\$10.00), payable within thirty days after notice of election, and within thirty days after each recurring annual date. The failure of any person to make such initiatory payment and such annual payments within said time shall, at the option of the Board of Trustees, be ground of forfeiture of annual membership.

This said annual membership shall entitle the member to:

First.—Free admittance for himself and family to the Museum on any day.

Second.—Ten tickets every year admitting the bearer to the Museum on pay days.

Third.—A copy of every publication of the Museum sold at the entrance door, and to the annual reports.

Fourth.—Invitations to all receptions, lectures or other entertainments which may be given at the Museum.

SEC. 3. The corporate members shall consist of the persons named in the articles of association, and of such other persons as shall be chosen from time to time by the Board of Trustees at any of its meetings, upon the recommendation of the Executive Committee; provided, that such persons named in the articles of association shall, within ninety days from the adoption of these By-Laws, and persons hereafter chosen as corporate members, shall, within ninety days of their respective election, pay into the treasury the sum of twenty dollars (\$20.00) or more. The failure of any person to make such payments within said time shall, at the option of the Board of Trustees, be ground for forfeiture of his corporate membership. The annual dues of corporate members shall be five dollars (\$5.00) after the first year of membership, and no one shall exercise the rights of a corporate member until his dues are paid; and a delinquency of six months in the payment of annual dues shall be ground for forfeiture of corporate membership. Only corporate members shall be eligible to the office of Trustee.

SEC. 4. Any person paying into the treasury the sum of five hundred dollars at any one time, shall upon the unanimous vote of the trustees, become a life member. Life members shall be exempt from all dues.

SEC. 5. Patrons shall be chosen by the Board of Trustees upon recommendation of the Executive Committee from among persons who have rendered eminent service to the Museum. They shall be exempt from all dues, and by virtue of their election as patrons shall also be corporate members.

SEC. 6. Honorary members shall be chosen from among persons who have rendered eminent service to science, art or mechanics. They shall be chosen by

a vote of the Trustees, and only upon unanimous nomination of the Executive Committee. They shall be exempt from all dues. In commemoration of the 14th day of October honorary members shall not be more than fourteen in number at any one time.

SEC. 7. All members of whatever class shall be eligible to appointment upon committees other than the Executive Committee.

ARTICLE II.

OFFICERS.

SECTION 1. The respective members of the Board of Trustees now in office, and those who shall hereafter be elected, shall hold office during life. Vacancies occurring in the Board shall be filled by a majority vote of the remaining members of the Board of Trustees at any regular meeting.

SEC. 2. The other officers shall be President, two Vice-Presidents, Secretary and Treasurer, and an Executive Committee of four persons, who shall be chosen by ballot by the Board of Trustees from their own number as early as practicable after the annual meeting in each year. The President shall be *ex-officio* a member of the Executive Committee, in addition to the other four members. The Secretary and Treasurer may, or may not, be the same person, and the Secretary may, or may not, be a corporate member.

Any officer may be removed at any regular meeting of the Board of Trustees by a vote of two-thirds of all the members of the Board. Vacancies in any office may be filled by the Board at any meeting.

SEC. 3. The President shall appoint from among the Trustees a Committee on Finance, a Committee on Property, an Auditing Committee, and a Committee on Buildings and Grounds, who shall serve during the pleasure of the Board.

SEC. 4. The officers shall perform such duties as ordinarily appertain to their respective offices, and such other duties as the Board of Trustees may from time to time devolve upon them. The Treasurer shall give bond in such amount and with such surety as shall be approved by the Executive Committee, and shall disburse the funds of the Museum only in accordance with the directions of the Executive Committee, upon the signature and counter-signature of such officers as the Executive Committee shall empower thereto.

SEC. 5. The Executive Committee shall have full control of the affairs of the Museum, under the general supervision of the Board of Trustees.

ARTICLE III.

MEETINGS.

SECTION 1. In commemoration of the discovery of America by Christopher Columbus, the annual meeting of the corporate members shall be held on the 14th day of October in each year, except when that day falls on a Sunday, and then upon the Monday following. At such meetings the corporate members shall transact such business as may properly come before the meeting. Special meetings of the corporate members shall be called at any time by the Secretary upon

written request of twenty corporate members. In such case thirty days' notice by mail shall be given to corporate members of the time, place and purpose of such meetings.

SEC. 2. Regular meetings of the Board of Trustees shall be held upon the first Monday after the 14th day of October, and upon the last Monday of January, April and July of each year. Special meetings may be called by the President at any time upon reasonable notice by mail, and shall be called upon the written request of three Trustees. Five Trustees shall constitute a quorum.

ARTICLE IV.

AMENDMENTS.

SECTION 1. These By-Laws may be amended at any regular meeting of the Trustees by a two-thirds' vote of all the members present, provided the amendment shall have been proposed at the last regular meeting preceding, or shall be recommended by the Executive Committee.

LIFE MEMBER.

By the payment of five hundred dollars.

W. J. CHALMERS.

HONORARY MEMBERS.

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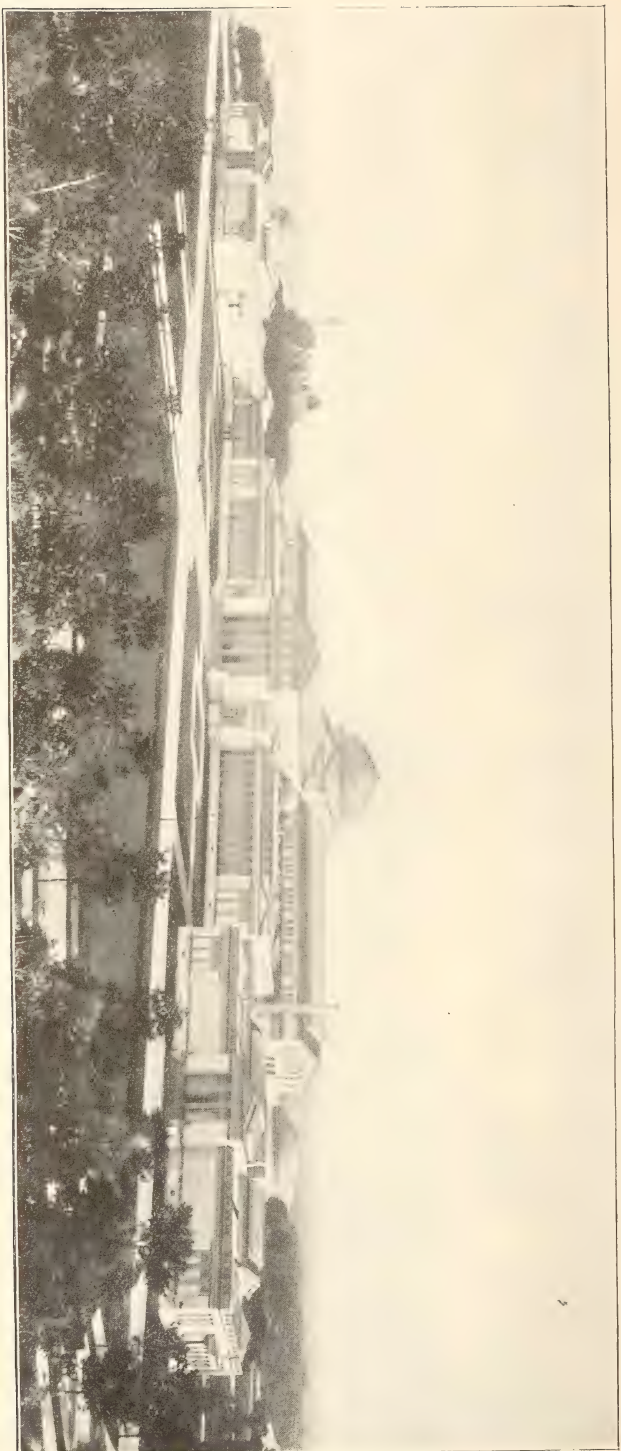
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1896-1897.

To the Trustees of the Field Columbian Museum :

I have the honor to present a report of the operations of the Museum for the year closing September 30, 1897. It is difficult to summarize in a paragraph an adequate idea of the result of the work. It has been uniform, steady and progressive. The physical conditions of the institution, although very much altered, rearranged and improved, show but a small part of the actual labor performed. Much of the scientific work has been of a nature that is not apparent to the casual observer and is concealed, as a matter of fact, from even the more critical visitors. The work in the laboratories and the constant application of time and study in the task of identification, inventorying, cataloguing and labeling have pushed these essential features of Museum work distinctly forward and brought the detail records of material within useful distance. The vast amount of this important labor suddenly devolving upon the Museum staff, as it did at the opening of the Museum, would have dismayed those less earnest and confident. The work is uninteresting, plodding and tiresome, with nothing that appeals to the student and expert or stimulates him to effort. The general appearance of the Museum has been improved and the outward form of its installation has assumed a more symmetrical and effective appearance: better harmony of arrangement prevails; a closer observance of the classification is apparent; weak points have been strengthened and strong points emphasized. The steadiness and uniformity of progress in all directions presents the most gratifying retrospect.

Several changes in the personnel of the staff have occurred during the year. The Departments of Geology and Economic Geology have been united and Mr. Nichols, heretofore Curator of the latter Department, has been made Assistant Curator of the Department of Geology, of which Mr. Farrington remains the head. The Departments of Industrial Arts and of Monographic Collections have been abolished and most of the material is transferred to Anthropology. Mr. W. H. Holmes, Curator of Anthropology, resigned to accept a

similar position in the National Museum, and Mr. George A. Dorsey, whose range of equipment covers all the divisions of the Department, has been placed in charge as Acting Curator. Mr. S. E. Meek, well known for his work on the United States Fish Commission, has been appointed Assistant Curator of the Department of Zoology, except Ornithology. The office of Librarian and Recorder having been divided for the betterment of the service, Mr. J. Dieserud has been appointed Librarian and Mr. D. C. Davies, Recorder.

INCOME AND MAINTENANCE.—By direction of the Executive Committee the Director's income and maintenance budget, which heretofore has covered the calendar year, was made to cover only the period between January 1, 1897, and September 30, 1897, with instructions thereafter to present an estimate of the income and expenses of maintenance for each year beginning October 1. The nine months' estimate for maintenance from January 1 to September 30 of this year was \$74,245; income from all sources for the same period was \$49,887. These estimates anticipated a deficit of \$24,358, which it was believed would result from the operations of the institution owing to the increased expenditures provided for in its scientific work. The actual income did not vary materially from the estimate, due, of course, to the fact that the income is largely a fixed one. The actual expenditures, however, were \$66,614, showing a gratifying saving in the budget of \$7,635, so that the net deficit for the nine months is \$16,723. This, it is of course understood, is with relation to maintenance. Additional sums expended by authority of the Executive Committee are apparent in the accompanying Financial Statement.

THE MEMBERSHIPS.—The annual memberships for the year have decreased slightly, ascribable to the fact that no special effort has been made to increase the number. The present list of annual members consists of those who have renewed their membership and the few who have voluntarily applied for membership. All persons who had contributed the sum of \$500 or more in cash to the institution were elected life members by the Board of Trustees. This included those upon whose gift of World's Columbian Exposition stock a dividend amounting to \$500 or more had been paid. Certificates of this membership were prepared and issued during the year, and the list of these members appears in its proper place in this report.

LECTURE COURSE.—Two series of lectures have been given since the last annual report, illustrated in most cases, and covering an unusually wide range of research and travel. The first of these, the

Sixth Lecture Course, was rendered more than ordinarily interesting and instructive by the contributions of gentlemen of distinguished ability in the particular lines of thought reflected in their discourses. The Seventh Lecture Course was presented entirely by the Curators of the Museum, as is the case with the course now in progress. The sixth course given during the months of September and October, 1896, comprised eight lectures:

Oct. 3.—“Archeological Explorations in Peru.”

Dr. G. A. Dorsey, Asst. Curator of Anthropology,
Field Columbian Museum.

Oct. 10.—“A Trip to Popocatepetl and Ixtaccihuatl.”

Prof. O. C. Farrington, Curator of Geology, Field
Columbian Museum.

Oct. 17.—“San Domingo.”

Mr. G. K. Cherrie, Asst. Curator of Ornithology,
Field Columbian Museum.

Oct. 24.—“Egypt and What We Know of Her.”

Dr. J. H. Breasted, Instructor of Egyptology and Semitics,
University of Chicago.

Oct. 31.—“The Petroleum Industry.”

Dr. D. T. Day, Chief of Division of Mineral Resources,
U. S. Geological Survey.

Nov. 7.—“Alaska and Its Inhabitants.”

Prof. George L. Collie, Beloit College, Wis.

Nov. 14.—“The Economic Geology of the Sea.”

Mr. H. W. Nichols, Curator of Economic Geology,
Field Columbian Museum.

Nov. 21.—“The Physical Geography of New England.”

Dr. H. B. Kummel, Assistant Professor of Physiography,
Lewis Institute.

The seventh course given during the months of March and April, 1897:

March 6.—“The Origin and Uses of Clay.”

Mr. H. W. Nichols, Assistant Curator, Department of
Geology.

March 13.—“Scope and Significance of the Department of Anthropology.”

Prof. W. H. Holmes, Curator, Department of Anthropology.

March 20.—“The Physical Anthropology in the Field Columbian Museum.”

Dr. G. A. Dorsey, Assistant Curator, Department of Anthropology.

March 27.—“The Silver Cities of Mexico.”

Prof. O. C. Farrington, Curator, Department of Geology.

April 3.—“The Plateau of Bolivia, The Thibet of the New World.”

Dr. G. A. Dorsey, Assistant Curator, Department of Anthropology.

April 10.—“Travels in Brazil.”

Dr. C. F. Millspaugh, Curator, Department of Botany.

April 17.—“The East African Expedition—London to South of Toyo Plain.”

D. G. Elliot, F. R. S. E., Curator, Department of Zoology.

April 24.—“The East African Expedition—Toyo to Ogaden and Berbera.

D. G. Elliot, F. R. S. E., Curator, Department of Zoology.

The attendance was very large at all of these lectures, and in several instances numbers were unable to gain admission. The capacity of the lecture hall is inadequate and its ventilation very poor. There are obvious reasons why these lectures should be continued in the Museum Building, but that their sphere of usefulness and their educational results are much contracted by reason of the size and arrangement of the lecture hall is without doubt. The stereopticon is lighted by electricity, and the reflections are much more brilliant and distinct than has heretofore been the case. A new reading lamp with modern appliances also adds much to the comfort and satisfaction of the lecturers. There are on hand, classified by lectures, 1,060 slides as follows:

	Total Number of Slides.	Number of Illus- trated Lectures.
Anthropology	150 slides	9
Botany	202 “	5
Geology	308 “	9
General	107 “	3
Zoology	293 “	8

PUBLICATIONS.—The established series of publications have been continued, and the issues have appeared at comparatively regular

intervals. Below will be found the titles of those issued since October 1st last, with the number of pages and illustrations.

Pub. 14.—Rep. Ser., Vol. 1, No. 2. Annual Report of the Director. 87 pages, edition 2,000, no illustrations.

Pub. 15.—Bot. Ser., Vol. 1, No. 2. Contribution II. to the Coastal and Plain Flora of Yucatan. By C. F. Millspaugh. 63 pages, edition 1,000, 14 illustrations (13 lithographs, one in two colors and one in three colors and one zinc etching).

Pub. 16.—Anthropol. Ser., Vol. 1, No. 1, Pt. 2. Archeological Studies Among the Ancient Cities of Mexico. By W. H. Holmes. 201 pages, edition 1,500, and 200 copies edition de luxe, containing publications No. 8 and No. 16 in one volume, bound in cloth, 120 illustrations (36 half tones and 84 zinc etchings).

Pub. 17.—Ornith. Ser., Vol. 1, No. 2. Catalogue of a Collection of Birds Obtained by the Expedition into Somali-Land. By D. G. Elliot. 41 pages, edition 1,000, no illustrations.

Pub. 18.—Geol. Ser., Vol. 1, No. 2. Observations on Popocatepetl and Ixtaccihuatl. By O. C. Farrington. 54 pages, edition 1,000, 16 illustrations (12 half tones and 4 zinc etchings).

Pub. 19.—Zool. Ser., Vol. 1, No. 6. List of Mammals from Somali-Land obtained by the Museum's East African Expedition. By D. G. Elliot. 49 pages. (Combined with No. 20).

Pub. 20.—Zool. Ser., Vol. 1, No. 7. Remarks upon Two Species of Deer of the Genus *Cervus* from the Phillippine Archipelago. By D. G. Elliot. One page, edition 1,000, 24 plates of illustrations (half tones).

Pub. 21.—Anthropol. Ser., Vol. 11, No. 1. Observations on a Collection of Papuan Crania. By George A. Dorsey, with notes on Preservation and Decorative Features by William H. Holmes. 48 pages, edition 1,000, 24 illustrations (11 half tones and 13 zinc etchings).

A marked improvement has been made in the handling of the mailing list, thereby doing away with the classification cards, the geographical list being the only card catalogue necessary in the system. The geographical list is arranged alphabetically, as usual.

The addressed cards are numbered consecutively upon the upper left-hand corner, while the classification of the address and the series of publications it is entitled to are indicated at the right. On the back of the card is stamped the date and number of any publication sent, and when acknowledgment is received the card is so stamped as regards the publication sent and acknowledged. The names are printed on the mailing list in classified order, and the number given each address is printed with it. In sending out a publication the number of that address is typewritten on the acknowledgment before it is placed in the publication. The number is quite a time-saver and prevents confusion, for if it is returned by the recipient of the publication without a name the number alone tells who or what institution it is from. This number refers directly to the card desired. Again, this number shows what card to credit as having received the publication sent, irrespective of whose name is written thereon, for sometimes the number on the acknowledgment belongs to an institution, yet there is only an individual's name signed, or written so indistinctly that it cannot be read. The single card catalogue dispenses with the work of looking up the address and finding out to what class an address belongs. When the back of the card is covered with publications a slip of strong white paper is pasted across the top, and both sides of the paper are filled, a process that can be repeated as often as necessary. In regard to the distribution of the publications, the table below shows the number and classes of foreign and domestic addresses. A comparison is also made with the number distributed last year.

	DOMESTIC.		FOREIGN.	
	1895-96	1896-97	1895-96	1896-97
OFFICIAL:				
Trustees	14	16	....	....
Staff	15	16	....	....
Corporate Members	53	2	....	....
Honorary Members	3	3	....	....
Annual Members	757	658	....	....
GENERAL ADDRESSES:				
Individuals . . . . .	..	263	..	161
Universities, Schools and Colleges	56	101	31	45
Academies and Institutions . . . . .	..	44	..	27
Museums and Gardens	5	17	42	57
Scientific Societies	37	79	45	75
Libraries	62	74	28	27
Government and State Department	..	39	..	20
Journals	11	41	20	43

ADDRESSES IN SPECIAL SCIENCES:	DOMESTIC.		FOREIGN.	
	1895-96	1896-97	1895-96	1896-97
Anthropology	128	135	81	101
Botany	123	129	53	75
Geology	150	152	115	125
History	56	56	..	..
Industrial Arts	31	27	3	2
Ornithology	19	19	12	37
Zoology	93	80	68	71

The distribution to foreign countries is accomplished through the Bureau of International Exchanges of the Smithsonian Institution.

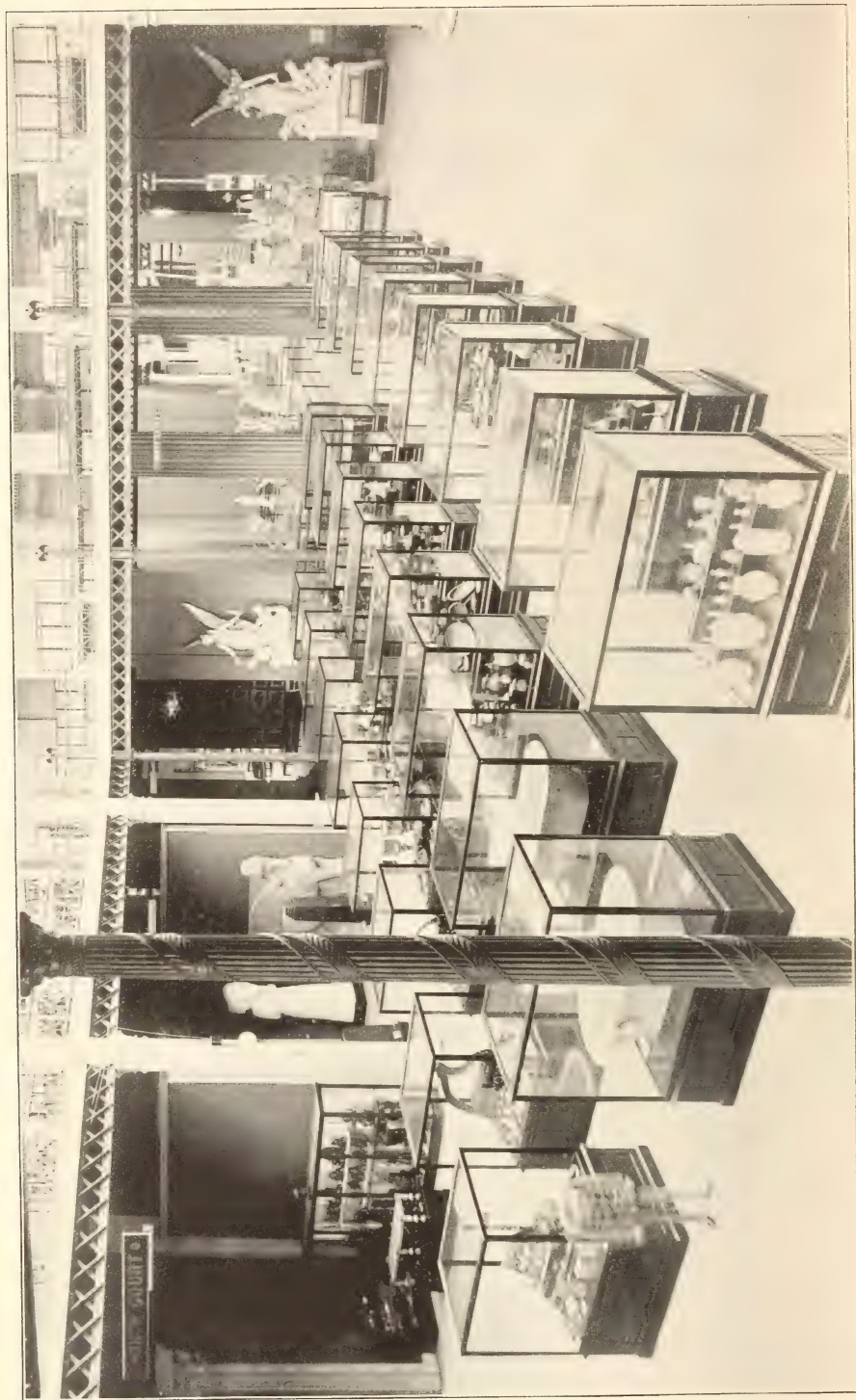
The fifth edition of the guide is in press and will be ready for the public by November 1.

LIBRARY.—The library contains 8,062 books and 7,680 pamphlets, distributed as follows: General Library, 6,341 books and 5,130 pamphlets; Department of Geology, 965 books and 2,500 pamphlets; Department of Ornithology, 368 books; Department of Botany, 216 books and 50 pamphlets; Department of Zoology, 172 books. The additions during the fiscal year were 787 books and 1,426 pamphlets, making a total of 2,213 titles, as against 1,835 for the preceding year. This is very satisfactory, considering the fact that only 132 books and 14 pamphlets have been added by purchase. The additions derived from exchanges showed a marked decrease during the first part of the present year, reaching the low number of 70 titles for the month of March. Some 420 letters were, however, mailed to institutions and scientists receiving the publications of the Museum, resulting in the establishment of some very valuable exchanges, and making the additions average nearly 300 titles per month for the last three months. The number of periodicals subscribed to is 40, the number received in exchange or as gift being 52, exclusive of proceedings and transactions of societies. A list of the accessions to the library accompanies this report. The work of cataloguing the resources of the library has progressed steadily. The author catalogue has been kept up to date and was carefully revised in order to be utilized in preparing the typewritten subject catalogue, of which some 5,000 cards have been written. The shelf list has been kept up to date and cards added for some 2,000 pamphlets not previously catalogued. A card catalogue of the accumulated duplicates was prepared and has been issued as the Second Annual Exchange Catalogue of the Museum. Collaboration has been rendered on a Union List of periodicals for the libraries of Chicago. It is to be printed in the near future, and will be a very valuable aid to the staff of the Museum when wishing to consult magazines and other scientific serials not on the shelves of

the Museum library. Three installments of the duplicate copy of the John Crerar Library catalogue, mentioned in the last report, have been received and the cards arranged in alphabetical order. It will be of great use to the staff and will prevent the duplicating of expensive books already to be found in that library. The permission secured from the Chicago Public Library to draw out reference books has been quite frequently made use of. The reference books in the General Library are constantly used by the staff, and a marked increase has been shown of late in the number of visitors availing themselves of the opportunity to consult the books. This is, however, evidently chiefly due to the prize essays now in preparation by pupils of the Chicago Public schools.

RECORDS.—The records have been much improved during the past year, especially in the introduction of a new index and a new system for recording incoming and outgoing material. The historical jackets have all been checked and re-arranged, and any confusion of data that prevailed at the time of the last report has disappeared. By the system now in operation the expenses of this department have been considerably reduced, while the service seems to be very satisfactory. The amount of material received through the customs has not been large, but sufficient to require close attention on the part of the Recorder. The officers of the custom house have been very accommodating, and the furnishing of careful instructions to consignors and the better knowledge of the requirements at this port on the part of regular correspondents have assisted in the dispatch of business of this character.

DEPARTMENTAL CATALOGUING, INVENTORY AND LABELING.—As intimated at the introduction of this report, this very important feature of the work of the Museum has been pushed with all possible vigor through the entire year. All of the departments report gratifying progress in this uninteresting but valuable work. In the Department of Anthropology a great deal of labor has been expended in this particular line of duty, more especially in the last four months. There were practically no records of this department when the Museum was opened, and probably more material has been received by this department than by any other, thus constantly demanding the attention of the Curator and his assistants to care for the new work, until at one time it looked as if confusion confronted the records of the department. Realizing the prime necessity of putting the records into intelligent shape, additional clerical assistance was provided, and the work has been earnestly pushed for the better part of this year, and especially for the past four months. With the work already in



NORTH COURT, FIELD COLUMBIAN MUSEUM.

hand, provision for the discharge of which has been made, the department may be said to be in satisfactory condition in so far as identification, numbering and inventorying are concerned. In the Zoological Department a large amount of this work, mostly clerical, remains to be done, for the reason that hitherto work has been confined to the identification and arrangement of material. When assistance is provided the work of inventorying may be done rapidly and without interruption. The Departments of Botany and of Geology have kept pace with the receipt of new material, which is largely all that was called for from those departments, because the work was so well in hand at the time of the last report. A large amount of new labeling has been done in the Ornithological Department. The year's work in the Museum on catalogues and inventories is shown in detail:

	No. of Record Books.	Total No. of Entries to Sept. 30, 1897.	Entries during 1896-7.	Total No. of Cards Written.
Anthropology, . . .	11	9,089	None.	10,000 est.
Botany,	14	20,714	8,765	500 est.
Geology,	9	15,445	1,693	None.
Zoology,	3	6,948	900	6,000 est.
Ornithology,	2	7,637	2,426	None.
Library,	3	13,373	2,213	10,500
Photography, . . .	1	1,809	812	—

ACCESSIONS.—The accessions of material have been very gratifying. All the agencies employed have given excellent returns, and all of the departments seem to have shared in the results. In the Department of Anthropology, in addition to the results of the Dorsey expedition to the northwest, not yet on exhibition, may be mentioned the continued contribution of Mr. Allison V. Armour in archeological specimens, including notable sculptures, vessels and ornaments in stone and terra cotta, and interesting examples in copper, clay, shells, etc. A highly prized addition to the archeology of Europe consisted of several hundred Etruscan antiques of earthenware and bronze excavated under the supervision of Prof. Frothingham, in 1895-1896. This collection includes many rare examples of Etruscan art, including a restored funeral couch of bone and ivory, which was found some years ago in a tomb at Orvieto. The collection was purchased for the Museum by Mr. C. L. Hutchinson. Mr. W. M. Petrie, of London, has presented the Museum with very interesting examples of Egyptian antiquities in terra cotta and stone, including fragments of stone vessels, statues, etc. Another very desirable contribution to the Department of Anthropology consisted of specimens provided by Mr. Clarence B. Moore, of Philadelphia, including vessels, cups,

shell ornaments, fragments of pottery, earthen vases, etc., from Georgia and Florida. Among the purchases for this department may be mentioned three lots obtained of Mr. Gustavus Goward, consisting of bowls, strainers, cloths, instruments, shells, mats, etc., from Samoa; eighteen casts of trepanned Peruvian skulls, purchased of Mr. D. W. Gill, of Washington. There were added to the ethnological material of this department 161 specimens collected by the Museum's African expedition. The accessions in the Department of Geology have been obtained chiefly through exchanges with individuals and institutions. This has been made possible by the careful selection of duplicates from material already on hand, and the results have been generally satisfactory. Of new material so obtained may be mentioned a series of the minerals of Utah, containing fine specimens of Topaz, Olivenite, Utahite, etc.; a series from Hackberry Grove, Iowa, fossils from the Hamilton group; a collection of crystallized copper from Lake Superior, received from The University of Chicago; a number of specimens of lava, serpentine, onyx and building stone received from the United States National Museum, and a collection of minerals from the State University of Arkansas. The meteorite collection has received notable additions, principally through exchange. Specimens of eighteen falls, not before represented, have been acquired, as well as large sections of the rare Smith's Mountain and Deep Springs farm siderites. A meteorite was obtained from Mexico, of which the Museum possesses the entire mass. It is as yet undescribed. The total number of falls now represented in this collection is 198. A valuable collection of local fossils has been received from J. W. Beardsley. These were largely collected on the Drainage Canal. Several slabs have been given for the marble collection by various marble concerns of the country. The collection given by the Boston and Colorado Smelting Company illustrates the process of smelting gold and silver and copper as practiced in Colorado at the Argo smelter, is a valuable addition. A fine series of photographs, illustrating mines and mining machinery employed at Real Del Monte, Mexico, was received through the kindness of Señor Carlos F. Landero. Excellent specimens of Allophane and Indianaite have been received from the Louisville, New Albany & Chicago Railroad, and the Georgia Railroad has donated various specimens of economic products found along its line. The purchase of a Fuess reflecting goniometer has made possible original crystallographic work, and investigations in this line are now being carried on by the Curator. In the Department of Ornithology the additions to the collection have been largely by expedition and purchase, although a number of valu-

able gifts appear in the list of accessions. The department collected in Florida, Texas and southern Illinois nearly 1,000 skins during the year. The African expedition contributed 296 specimens from Somali-Land and Ogaden. There have been added by purchase from different collectors over 1,300 skins, about equally divided in number between North America and Central and South America. In the Department of Zoology there have been added since the last report 193 mammal skins and 22 skeletons, 115 specimens of fishes and 30 specimens of reptilia, collected by the African expedition. The department has also received by collection for its division of Entomology about 6,000 specimens, mostly from Illinois, Michigan, Wisconsin, and Florida. By exchange with the Natural History Museums of Paris and London some very rare mammals have been obtained and valuable collections have been presented to the division of Ichthyology by the Assistant Curator of the department. The valuable series of fishes obtained by the African expedition contained some species which were new to science and others very rare. The Museum has also purchased a number of very rare mammal skins and two collections of shells, corals, etc. Ringling Brothers presented the Museum with several skins and skeletons, and a large amount of miscellaneous material has been added to the possessions of this department from various sources. Among the notable collections obtained by the Botanical Department during the past year are Pringle's Mexican Plants, Palmer's Durango collection, Nash's and Pollard's Florida and Mississippi plants, the Sandberg Idaho collection, Gaumer's last Yucatan species, Jenman's British Guiana and Rusby's Orinoco collections; Schlechter's South African species, the complete lichen herbarium of Calkins and the important personal herbarium of the late Dr. Schott. The herbarium of Dr. Schott, as the mounting and distribution proceeds, proves to be of far greater value and interest than was at first supposed. Beside the Yucatan plants (some 960 numbers collected by him during the years 1884 and 1886, and as yet unpublished) are his Panama Canal survey and Mexican boundary survey collections, both of the greatest value to botanists and students. The Old World plants in his herbarium also prove of great value, being very abundant in the Flora of Eastern and Mediterranean Europe. The Austro-Hungarian [section contain many series of type plants, with manuscript labels, described by Wierzbicki, Hoffman, Opiz, Heuffel and other distinguished authorities. The Gaumer collections from Yucatan, with Dr. Schott's plants, yield over 500 additional species to the Flora, which have been collated in manuscript for a third contribution to the Flora of that region, now nearly ready for the printer.

EXCHANGES.—Since the date of the last report the Museum has issued two exchange catalogues, one being a list of duplicate material on hand for exchange and the other a list of duplicate books and pamphlets. These catalogues have been mailed to a great many individuals and to all contemporaneous institutions with a request that they be examined with a view to effecting an exchange of specimens and literature. The results have justified the undertaking. A number of profitable exchanges have been completed and correspondence has been opened that is sure to lead to very good results. About fifty exchanges have been made, and probably as many more propositions are under consideration.

EXPEDITION AND FIELD WORK.—At the date of the last report the African expedition was in the field. Mr. Elliot, the chief of the expedition, has already provided a detailed account of this expedition, but a brief resume seems to be required in this report. The expedition had intended to enter Mashonaland from the Port of Veira, but information received that the invasion of settlers and the large number of hunting parties had reduced the number of wild animals and driven them, in a large measure, from their haunts, together with the possibility of trouble with the natives, especially the Mashonas, induced the abandonment of this route and turned attention to a section of country around Mount Kilimanjaro and the country of the Massai, the home of the elephant, the rhinoceros, etc. It appeared, however, upon investigation that this country was very much disturbed by tribal rebellions, and that the opportunities for obtaining large game was lessened by the prevalence of the rinderpest, which scourge had attacked the Massai cattle, buffalo, antelope, etc. The extinction of so many species of wild animals by disease, to say nothing of the possibility of a conflict with the natives, resulted in the abandonment of this route and the selection of Somali-Land and the country adjacent to it. Mr. E. Dodson, who had just returned with Mr. Donaldson Smith from Lake Rudolph, was added to the party, and on March 27, 1896, passage was taken for Aden, which port was reached April 13th. Preparations for the continuation of the trip were actively commenced, provisions were obtained for the men, goods for trading with natives, and the numerous articles necessary for the outfit of a large expedition. Horses and mules were also purchased at this port. April 20th the party sailed for Berbera, on the south coast of the Gulf of Aden, whither the outfit purchased in London had already been dispatched. Having purchased a number of camels sufficient for a short trip, the expedition took march in search of wild asses. After ten days spent in collecting asses and



GROUP OF LESSER KOODOO.

(Dimensions of case, 12 x 12 x 10.)

C. E. Akley, Taxidermist.

gazelles the party returned to Berbera, where an equipment of about forty camels was secured, and the journey south was taken up. The country was exploited until about the 20th of May, when the expedition again returned to Berbera. Here further delay was encountered by the difficulty of procuring camels, but on the 25th of May, a sufficient number having been obtained, the real expedition to the interior was undertaken with Ogaden as the principal objective point. In reaching this point, in crossing the Haud, and Silo, and at Adodleh, Hargeisa, Niglileh and Gerenouk, sub-expeditions were detached from the main body and dispatched in different directions, and the country for hundreds of miles was hunted for the game which inhabits it. Both the chief of the expedition and his assistants suffered from intense heat and great privations, and eventually succumbed to the prostrating conditions that surrounded them, but not until they had passed four months in that awful country and had obtained a magnificent collection. They arrived safely at Aden and sailed for London on the first of October. In concluding his report, Mr. Elliot, chief of the expedition, says:

“The collection obtained is very valuable, probably the most important, certainly so as regards quadrupeds, ever brought out of any country by one expedition, and consists of about two hundred mammal skins, three hundred of birds, numerous reptiles, and about half a barrel of fish, obtained on the coast and at Aden. Skeletons of every species, in certain cases two or three of the same species, were preserved, and casts of heads and parts of bodies showing the muscles of the large animals were made. These will be beyond price, when it is desired to mount the species, exhibiting, as they will, every muscle, artery, and in the case of heads, the proper lay of the hair and contour of the face. Besides these we have over three hundred negatives of the people we met, the scenery of the country through which we passed, and the animals, living and dead, which we had obtained. These last will be of as great value to the taxidermists in their work, as the casts, and they are both unique assistants. Such materials never before having been secured. Besides the Zoological collection, I procured specimens of native weapons, utensils of all kinds, ornaments, and such slight garments as they wear, some one hundred and forty objects in all, being a very fair representation of the materials in use among the tribes we passed through. Although fond of singing and possessing a correct ear for music, they have no musical instruments of any kind, not even a war drum, and in this respect are apparently peculiar among savage people. It is difficult to estimate the total value of the material secured.

so much depends upon the condition of the skins and the rarity of the species. In a few years, from the gradual disappearance of the large animals, which has been going on in the African continent for a considerable period, and already has resulted in the complete extinction of some of the finest species, the collection brought to the Field Museum will be practically priceless. It is the only proper way to secure collections for a Museum, and for what must still be accomplished, " 't were well if 't were done quickly," for the time is near at hand when, in certain lines of Zoology, especially in the large mammals of the world, it will be forever impossible to procure examples. They are certain, most of them, to become as extinct as the Mastodon or Dodo are to-day. Of all the existing wild creatures, those of the African continent are disappearing the most rapidly, and although the Field Museum by its recent acquisitions is ahead of all its sister institutions in the United States as regards the large quadrupeds of Africa, yet there are large numbers not yet represented."

On May 12th, Mr. George A. Dorsey, Assistant Curator of Anthropology, accompanied by Mr. Edward Allen, Photographer of the Museum, left Chicago for a four months' trip among the Indians of the far West. They visited the following tribes in succession: Blackfoot, Kootenay, Flathead, Haida, Tlingit, Tsimshian, Moki and Zuñi. The special object of the expedition was to secure ethnological and physical anthropological material for the building of groups which would adequately portray the stages of culture and the physical characteristics of these tribes. Of some of the tribes visited such representation is no longer possible owing to the great changes which have taken place during the recent years from a more intimate contact with the white race. Taking this into consideration the expedition was very successful. Mr. Dorsey reports: "Probably the most complete single representation of any one group was that collected on the Blood Reserve in Canada. The Bloods are one of the branches of the Blackfeet, about the sole surviving remnant of any importance of the great Algonkin stock, which, in former times, extended from the Atlantic seaboard to the eastern slope of the Rocky Mountains. The collection from the Bloods comprises over three hundred objects of ethnographic interest, covering the entire range of their domestic and religious life. Of especially great value is the complete paraphernalia of one of the rare ceremonial medicine pipes. With this were collected costumes, etc., so that it will be possible to represent one of the scenes in the transfer of the medicine pipe. Furthermore, a large amount of osteological material was collected both from the

Bloods and the South Piegons, another tribe of the Blackfeet. From this it will be possible to make a full and complete representation of their physical characteristics. A large number of measurements and photographs was also taken. From both the Flathead and Kootenay Indians as complete ethnographic collections were secured as was possible. The Kootenay collection included a curious full size bark canoe, which is sharp at each end, and both ends navigate under water, in the manner of a modern man of war. Two complete skeletons, a male and female, were also secured from the Kootenay near Bonner's Ferry. These, it is believed, are the only Kootenay skeletons ever secured, owing to the strict watch kept by those Indians over their burial grounds. As the Museum was already in possession of a very large and comprehensive collection from the tribes of the Northwest coast, the attention of the expedition was chiefly confined to the filling in of such gaps as existed, and to the securing of material necessary to build culture and physical groups. In both these respects the expedition was especially successful among the Haidas. By visiting several of the abandoned villages of the Haidas, on the north shore of Graham's Island of the Queen Charlotte group, a large collection of complete skeletons of both sexes and of various ages was secured, together with many objects of ethnological interest. From the village of Masset additional ethnographic material was collected and many measurements and photographs were made. Among the latter were several of aged persons, showing the former manner of wearing the labret and tattooing the hands and feet of the women, and of tattooing the arms, feet and breast of the men. From the Tsimshians and Tlingits it is almost impossible to secure osteological material, owing to the fact that until within the present decade the dead were cremated, while at present the dead are buried after the manner of the whites. For this reason only a single skeleton could be secured from each tribe. That of the Tlingits is of special interest as it is the skeleton of a Shaman or Medicine man. The Shamans were not cremated owing to the prevalence of a belief that their bodies would not burn. The Tsimshian skeleton is that of a chief. By ascending the Skeena River to the far inland Tsimshian villages, it was possible to secure a large collection of objects representing their domestic life, objects which are not usually found in Musuem collections from this region." With the addition of this material to that already in the Museum, it is confidently believed that the Museum possesses the most complete existing representation of the Northwest coast Indians. Among the Mokis and Zuñis, time did not permit of any exploration

either in the ruins or abandoned burial grounds, and the expedition confined its attention to the collection of objects of ethnographic interest. The collection made at the Pueblo of Oraibi of the Mokis is quite full and complete. This was possible from the fact that Oraibi is, of all the Pueblos of the Southwest, the most primitive and least contaminated by white contact.

In September, Mr. Farrington, Curator of Geology, made a trip to the caves of Kentucky and passed some time in collection and study. A large amount of material illustrative of cave formation was secured and arrangements were made which will probably result in securing to the Museum later a unique collection in this line. On the same trip the Nashville exposition was visited and a number of specimens obtained for the Museum from exhibitors there. The Assistant Curator of Geology spent two weeks in July in the "Boston Basin," collecting material illustrative of points of structure and dynamic geology and lithology. As he had a previous acquaintance with the region the amount of material secured was large and valuable. A complete series of specimens illustrative of the formation of soil from diabese, a series of veins and dikes, and a collection of the acid and basic volcanic rocks of the region were chief among the specimens obtained.

Mr. Millspaugh, Curator of Botany, in the prosecution of his efforts to make a collection of the forestry of North America, visited during the year, Northern Mississippi, Southern Illinois and Eastern West Virginia collecting specimens, gathering data and taking photographs in pursuance of a plan in behalf of this division of his department as outlined in the following report to the director:

"The need in a great commercial center of not only an adequate but authentic reference collection exploiting the commercial timbers of North America is not only urgent but of the greatest moment to business men, railroad systems, builders and contractors, and to students and teachers in the central west. To this end this department has undertaken, on a comprehensive scale, the amassing of a complete series of monographs that shall adequately represent the most essential and educational features of our North American forests, in which work the Museum is being ably seconded by the different railway systems of the country to which such a collection appeals with great force. Although the building up of these monographs entails a careful and considerate selection of material, scientific accuracy in each detail and a large amount of travel and association with all branches of lumbering, from the tree-feller in the forest, the sawyer in the mill, and the manufacturer in his



PL. IV. ECONOMIC BOTANY. MONOGRAPHIC INSTALLATION NORTH AMERICAN FOREST TREES.

The specimens comprising each of the monographs in the series are as follows: and framed tray containing a branch, flowers and fruits and a block of wood from the same tree; a photograph of the tree in summer; and the same tree in winter; a seven-foot trunk and a cross-section; a two-foot map of North America, colored to show the distribution of the species; and a series of ornamental cabinet specimens of the wood.

PL. IV. ECONOMIC BOTANY. MONOGRAPHIC INSTALLATION NORTH AMERICAN FOREST TREES.

The elements comprising each of the monographs in the series are: A glazed and framed tray containing a branch, flowers and fruits and a block of wood from the same tree; a photograph of the tree in summer, and the same tree in winter, both from the same point of view; a seven-foot trunk and transverse section; a commercial plank, a two-foot map of North America, colored to show the distribution of the species, and a series of ornamental cabinet specimens of the wood.



MONOGRAPH - NORTH AMERICAN FORESTRY.

works, to the transportation agents and the lumber dealer, and although the specimens gathered require considerable time in their preparation, several of the monographs are now so nearly complete as to allow the beginning of installation, and a detailed description of elements entering into the exposition of each species will not be out of place. To the expert in lumber it is absolutely essential that a series of authentic specimens be procured that, when compared with a given sample, will leave no doubt in the mind of an individual or a jury as to the accuracy of any identification that may be made. Such a series of specimens has not as yet been collated in the United States. The first element in these monographs is intended to furnish such authentic specimens, and consists of a branch of the species in full and typical leaf, associated with a block of wood cut from the identical tree from which the branch was gathered. With this branch and block is placed both flowers and fruit for the further identification and elucidation of the species. While this part of the collection is being made, several other trees in the locality, that compare exactly with all the botanical characters of this particular individual, are blazed for felling in the winter after recedence of the sap, to contribute to Element III and IV of the monograph. A feature that adds beauty, interest and value to such a collection consists of enlarged photographs of a type of a species, both in its foliated condition of summer time and its characteristic form in winter when denuded, at which time its value as a timber tree is greatest. To this end two visits with a camera are required, and the location of the instrument and hour of the day noted, in order that the portraits may exactly correspond. These negatives are then enlarged three diameters to agree with Element I. The character of the trunk and bark of the species plays an important part, not only in a timber inspector's work but also in the student's consideration of the tree. Trunks of sufficient size to maintain character are therefore marked during the gathering of the first Element, and felled the following winter, great care and patience being expended upon the work in order that these large and heavy objects may reach the Museum with as little injury to the bark as possible. These trunks are selected one-half the average size attained by the tree at its full growth. The ratio between all species is thus maintained, and size comparisons may be readily drawn by the observer throughout the collection. With the trunk is exhibited a "wheel" or transverse section of the same, showing the character of growth of the species and the comparative thickness of the bark, sap-wood and heart. At the right of each monograph is placed a

seven and one-half foot plank of the species, simply planed to show the character of the lumber produced. With this is associated a "quartered" board exhibiting the character of the wood when sawed through the medullary rays. In cases of large genera, like the oaks, ashes, pines, etc., etc., these planks and boards are especially sawn from trees selected and blazed when standing with their summer characters intact. Most of our American trees exhibit various ornamental forms of woody growth, such as burls, curls, wavy lines, bird's-eye figures, blisters, block marks, etc., etc., making valuable varieties for fancy cabinet making. Samples of these forms, dressed and polished, are shown in Element V. The distribution and predominance of each species is represented in shades of color (deepest where the tree is most prevalent) upon an outline map of North America two feet square. This serves a commercial purpose in indicating timber growth to prospective timber buyers. A large descriptive label occupies a prominent place in each set, and in giving the principal and subsidiary common names of the species, the botanical or universal name, the distribution of the species, the characters of the tree and wood, the uses to which the lumber is most often put, and statistics showing the physical characters of the species, its weight per cubic foot, hardness, resistance, fuel value, etc., etc." Several weeks were passed in the forests and timber-growing regions of these three sections of the United States, and a great amount of material was gathered and provided for. Assistance was generously given by the Illinois Central R. R., the West Virginia Central, the Ayer & Lord Tie Company, the Coahoma Lumber Company and others, who evinced their interest in this permanent exposition by offering material and transportation to assist in completing the work.

The Assistant Curator of Ornithology was on collecting expeditions along the coast of the Gulf of Mexico and in Florida and Southern Illinois for about three months in the late winter, and collected several hundred skins to be added to the already large collection of North American birds, to which the Curator of the department is devoting a great deal of energy.

INSTALLATION, RE-ARRANGEMENT AND PERMANENT IMPROVEMENTS.—The Department of Geology has performed a large amount of work during the year in the re-arrangement and classification of material already on hand. This has seemed desirable in order to bring the installation of some of the halls up to a proper museum standard, and also to make available originally acquired material which had not obtained proper display. The improvement resulting from the effort so

Fig. 1. View of Hall containing Collection of Marbles and Ornamental
Stones.

There are exhibited about 350 specimens of the best known varieties of American, French, English, Italian, Greek and Norwegian marbles, together with representative and ornamental rocks adapted to ornamental uses. So far as possible the specimens are in the form of polished slabs of the uniform size of two by three feet. The object of the collection is to facilitate study of varieties of ornamental stones and give information of the localities where they may be obtained.



expended has been marked, and with the possible exception of two halls, the system of installation now exhibited through the department may be considered permanent. To the cases in the Paleontological halls, which contain the fossils of the geological period, large framed maps showing the distribution of these rocks in the United States have been added, thus giving opportunity for locating the forms of the period. The educational value of the systematic mineral collection has been increased by neat case labels which give the composition and system of crystallization of each species. The collection illustrating structural geology, has been so largely increased that an entire re-arrangement has been necessitated and part of the specimens have been transferred to Hall 66. A collection illustrating the rocks of the Saarbrücken coal fields has been brought from storage and also placed in this hall, together with a series of rocks of Popocatepetl and Ixtacchuatl collected by the Curator in Mexico. From the large marble structure formerly shown in Hall 67, slabs of uniform size have been cut, so as to illustrate the different varieties of marble which they represent. These, together with specimens obtained from other sources, have been installed in large, upright and well lighted cases in the hall and given a geographical arrangement. Thus an extensive collection consisting of about 350 specimens has been obtained, which represents the principal varieties of marbles from France, England, Italy and the United States, as well as many varieties of serpentine and onyx. In this form the collection proves to be far more instructive and attractive than before. In Hall 68 the pyramids made up of building stones of irregular sizes have been removed and the specimens which they contained have been cut to cubes of uniform size. These are now installed in systematic order in cases. With these and other additions, the building stone collection now includes: granite from sixty-seven, sandstone from ninety, and marble from eighty-eight localities, with about sixty miscellaneous specimens. In Hall 69 the cases have been repainted,—printed labels giving complete information regarding each specimen, including its analysis, have been put in place, and thorough treatment has been given to each specimen when necessary to prevent its decay. The oils in Hall 71, which had become discolored through decomposition have, through the generosity of the Standard Oil Co., been replaced by fresh specimens, and some improvements in installment have been made. By careful selection and arrangement of material already on hand, a series of collections illustrating several different processes of extraction of lead and silver have been put in place in Hall 72 and given a graphic

installation, which enables the visitor to study accurately and rapidly the different steps of the processes. Similar collections illustrating the extraction of copper have been placed in Hall 79. The processes so represented include the Friedrichshütte and Lantenthalshütte processes for refining lead and silver; the blast furnace process for the extraction of lead; the Argo, Colorado, smelting process for extracting gold, silver and copper; the Friedrichshütte reverberatory process for extracting lead and silver, the blast furnace process for the extraction of copper, and the reverberatory furnace or Swansea process for the extraction of copper. In Hall 79 an entire re-arrangement has been made of the iron, nickel, arsenic and other ores, so that now they present a more logical order than heretofore and their study is facilitated. The cases in Halls 72 and 79 have been lined and painted to give a better background for the specimens and preserve them from dust. In Hall 72 the large collection of silver ores made by the Curator in Mexico has been installed so that a very satisfactory representation of these ores can be seen. The specimens of gold and silver alloys, which had tarnished badly, have been reburnished, through the kindness of Messrs. Tiffany & Co., of New York. In Hall 72, devoted to the metallurgy of iron, changes involving a large amount of time and labor have been made, but the improved appearance of the hall amply compensates for the expenditure. The large, heavy objects having little significance have been removed, and their places have been supplied by cased models of rolling mills, hot blast stoves, etc., and a case of specimens illustrating the manufacture of different grades of pig iron. The large collection of test specimens illustrating the tensile strength of various grades of iron has been fully and accurately labeled, and the same is true of all the objects shown in the hall. In its present form the hall attracts much attention and is a place where valuable information regarding the metallurgy of iron can be obtained.

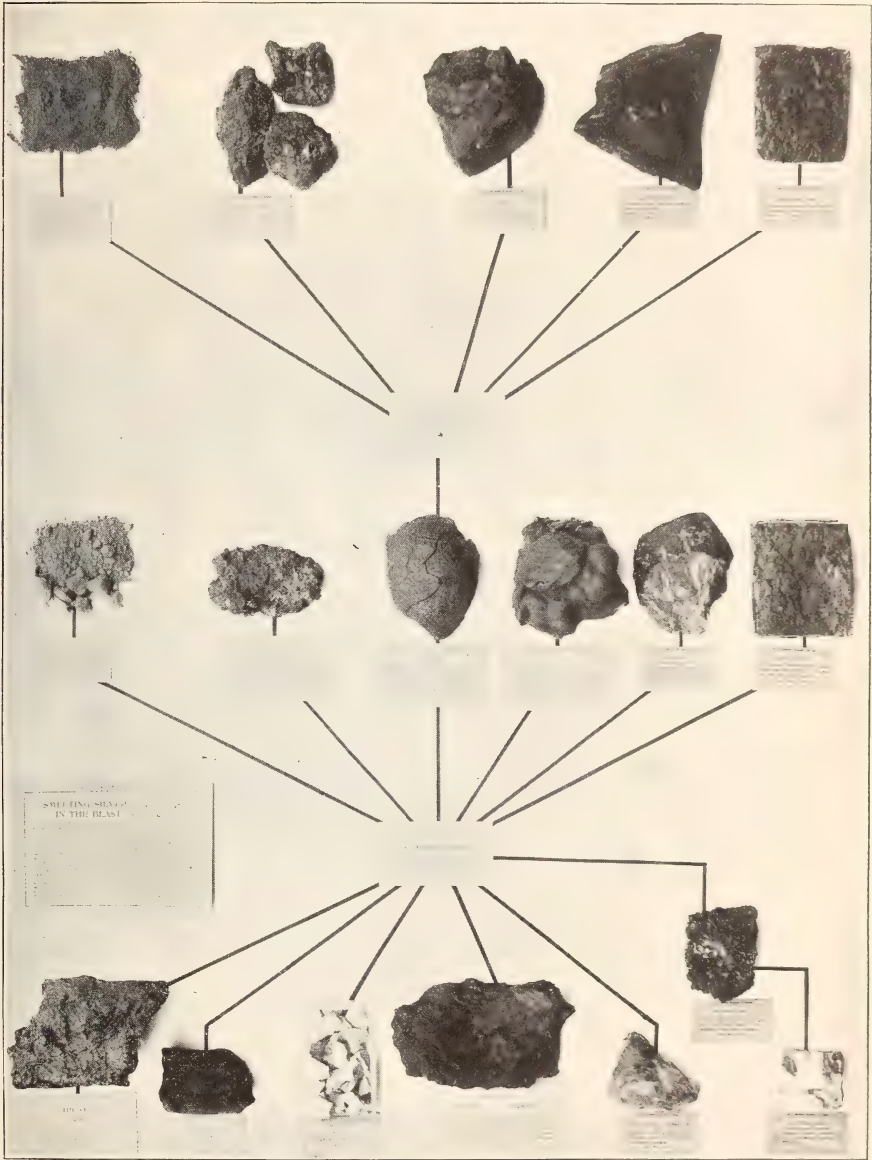
The Curator of the Department of Botany has added to the herbarium during the year, six more cases containing about 4,000 species, and in completing the installation of economic material four large cases have been installed on the transept of the west gallery. Considerable work has also been performed in caring for the specimens in the old, and not very desirable cases in different parts of the department and in installing, according to the plan described at some length elsewhere, that portion of the North American Forestry collection already received. A force of workmen has also been engaged in the workshop on Jefferson avenue, at different times during the year, preparing woods for this collection.

PL. VI. ILLUSTRATION OF INSTALLATION EMPLOYED FOR COLLECTIONS REPRESENTING METALLURGICAL PROCESSES.

The cut shows scheme for illustrating the blast furnace process for smelting iron ores. The section in the lower row are samples of the ore, flux and fuel used for the blast. These are fed to the blast furnace as indicated by the arrows pointing to this latter. From this furnace are obtained the various products represented by specimens at the end of the diverging lines. Further treatment of the products is denoted by the line running from it to the label indicating the next stage forward. At the end of the lines diverging from this are placed specimens of the products obtained by treatment in this furnace. The individual specimen labels state the composition, properties, uses, etc., of each substance.

PL. VI. ILLUSTRATION OF INSTALLATION EMPLOYED FOR COLLECTIONS REPRESENTING METALLURGICAL PROCESSES.

The cut shows scheme for illustrating the blast furnace process for smelting lead ores. The specimens in the lowest row are samples of the ore, flux and fuel employed for the charge. These are fed to the blast furnace as indicated by the lines converging to this label. From this furnace are obtained the various products represented by specimens at the end of the diverging lines. Further treatment of the matte is denoted by the line running from it to the label indicating the matte blast furnace. At the end of the lines diverging from this are placed specimens of the products obtained by treatment in this furnace. The individual specimen labels state the composition, properties, uses, etc., of each substance.



CASE INSTALLATION OF METALLURGICAL PROCESS.
(Bottom of Case.)

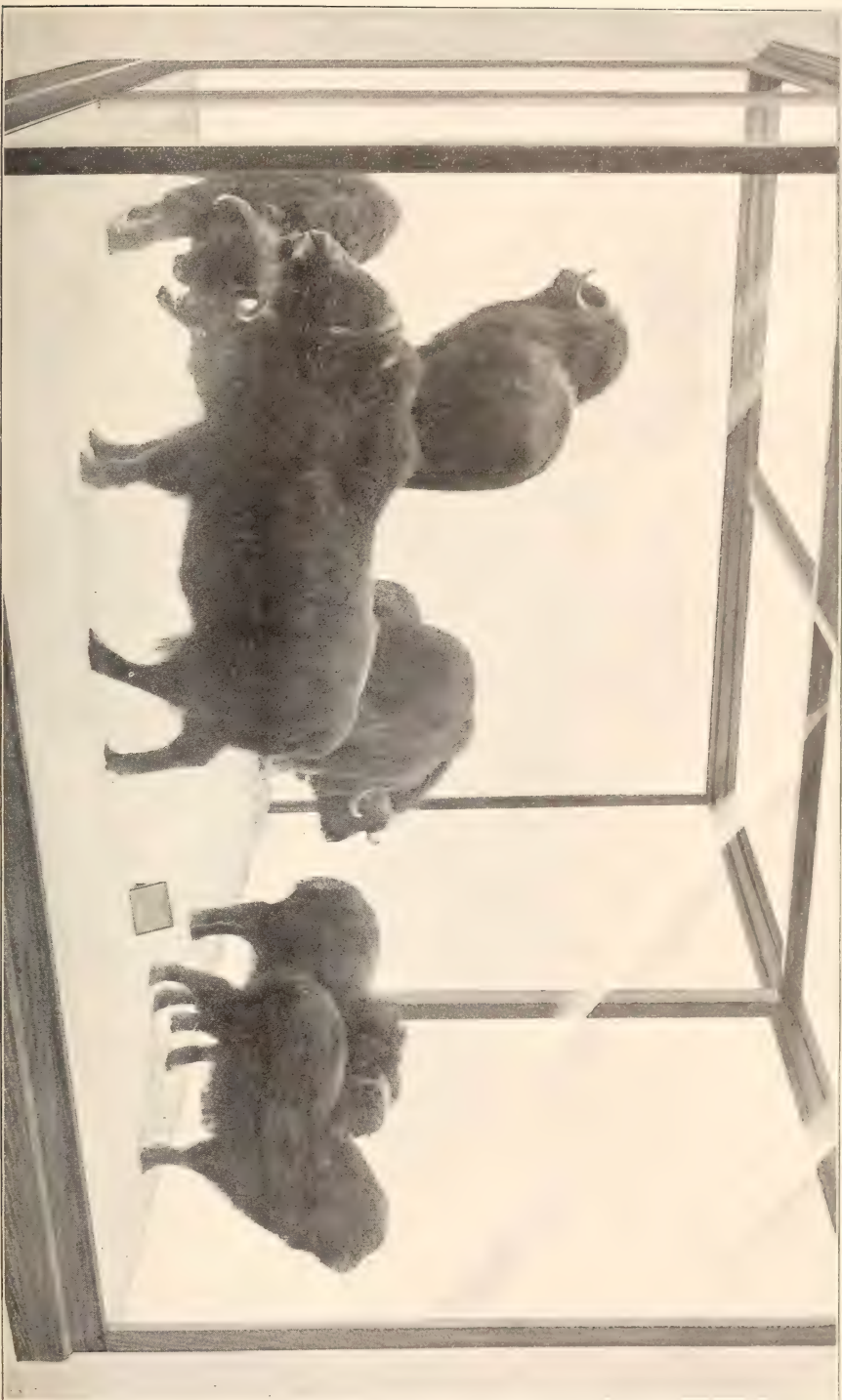
The installation in the Department of Anthropology has been much improved during the year by the addition of a number of ebony cases containing the Hutchinson Etruscan material referred to elsewhere, and material obtained by the President of the Museum while abroad last winter. The general arrangement of the department, with this exception, remains unaltered, although individual cases have been changed about more or less, and the installation re-arranged and brought to a higher standard in a number of halls, more especially in the hall devoted to Egyptology.

The exhibits in the divisions of Mammalogy and Osteology in the department of Zoology have been re-arranged and classified, and the cases in the latter division have been painted black inside, showing their contents to better advantage than before. Much work has been accomplished in preserving and mounting insects of many kinds. Numerous cocoons have been collected and a small hatchery commenced, which, it is trusted, will bear fruit next spring. The spirit formaline in which the specimens of fishes were preserved failed under the extreme low temperature which the exhibition halls reached at night during the winter, and alcohol has been or is to be substituted in all instances and the specimens placed upon upright plaster slabs within the jars, thus showing them to better advantage. In the west court this department has installed two very notable groups — the musk ox and the lesser koodoo. The taxidermy has been nearly completed, and the case provided, for a collection of Waller's gazelles. The striking manner in which these three rare and interesting groups of animals are arranged and posed, the life action and naturalness of the picture presented, no less than the scientific fidelity and faithfulness of accessories, stamp them at once as of the very highest character of work that can be performed. In the musk-ox group seven animals are most attractively disposed upon a field of snow, through which a huge rock protrudes, surmounted by a splendid male in a commanding attitude. Others of the herd are seeking in the snow with hoof and nose for what lichens may be concealed beneath. Everything about the group is full of quiet, natural life: everything is harmonious and realistic. In the koodoo and the gazelle groups the same high character of art is manifest. In the former a striking accessory is an ant hill, upon which is perched an African owl. The trees and growing things are true to life, and, although the area is limited, the impressions of the desert are forcibly conveyed to the spectator. The gazelle group presents that graceful animal in most effective and dramatic grouping, finished in every artistic detail, and complete in every requirement of the scien-

tist and hunter. Attention to the work of Mr. Akeley, the chief Taxidermist, who, under the direction of the Curator of the department, has executed these three groups, cannot be directed too flatteringly.

In the Department of Ornithology seven handsome groups have been added during the year, reflecting a class of work of which the Museum may take gratulation and exhibiting the theory of popular education, under the rule of scientific accuracy and artistic treatment. The groups may be briefly referred to as the Herons, the Robins, the Quails, the Hen and Ducklings, the Prairie Chickens, the Fox and Owl, and the Ducks and Cat. These are installed in halls 26 and 27, provision therefor being made by removing the collections in Oology into the alcove of hall 27. The taxidermy of the group referred to is exceptionally well done; the accessories of Mr. Mintorn and Mrs. Mogridge are fully up to the standard of these well-known artists, while the argument or story of each group as prepared by the Curator of the department is interesting and instructive to an unusual degree.

The taxidermists having been removed to the annex east of the main building, the rooms formerly occupied by them at Jefferson avenue, are occupied by the Osteologists for macerating, cleaning, articulating and mounting. A number of improvements have been made in the taxidermist annex, including a cement floor in the cleaning room, the erection of partitions, etc. The carpentershop, which was located at the east of the building, has been turned over to the Department of Ornithology for a work room, and a carpentershop constructed in an unoccupied part of the boiler house. The paintshop, which was also crowded out of its quarters by the requirements of departmental work, has been removed to the building on the corner of Fifty-sixth street and Jefferson avenue, where, though rather remote from the Museum, the painters have ample accommodations. The operation of the electric light and heating plants has been very economical. With the exception of the ordinary repairs and changes, very little labor or material has been required, excepting the renewal of the spools in the armature. Repairs on the building have been very largely of a nature that could be made from day to day, with the force at the command of the superintendent of the building. Considerable staff has been replaced with sheet iron, the cornice having given the greatest amount of trouble. It is now, however, in good condition for the winter. The damage done to the main dome during the wind storms at different times during the year induced the substitution of thin iron sheets for the glass, the dome being so far above the floor of the building that this made no appreciable differ-



GROUP OF MUSK OX.

(Dimensions of case, 15 x 15 x 12.)

C. E. Akeley, Taxidermist.



HERON GROUP—DEPARTMENT OF ORNITHOLOGY—FIELD COLUMBIAN MUSEUM.

(Dimensions of case, 10 x 10 x 6.)

ence in the light dispersement. It is the intention to carry out this plan of substituting iron for glass in all of the exposed parts of the roof where the glass is not essential as a means of conveying light to the interior. The figures immediately over the south entrance have been removed and the two ornaments on the grounds north of the building have been razed. The roof has had a constant and very careful inspection and has been kept in such condition that the coming winter is regarded with no apprehension whatever. The interior of the building has been constantly drawing upon the labor resources of the institution. The plaster work not only of the columns but of the coves and the cornices requires constant attention. The offices of the Director, the Librarian, the Curator of Anthropology, and the Superintendent have all been repaired, repainted and generally renovated during the year. The toilet rooms have also been placed in better condition. A waiting room has been constructed at the south entrance for the accommodation of visitors who desire to send their card to some officer of the institution or head of a department. The three caravels moored in the south pond have recently received two coats of lead and oil, the hatches nailed down, the seams caulked and placed in general repair. The boats are now in a very presentable condition. A contract has been entered into, with the consent of the Board of South Park Commissioners, to install the Viking ship in a permanent iron pavilion at the southeast corner of the main building. The tracings of all drawings for new installation work, cases, etc., are now kept by the Superintendent, and plans and drawings of the buildings and the water, gas and steam systems have also been made of permanent record.

PHOTOGRAPHY AND ILLUSTRATIONS.—This important division of the Museum has added measurably to its proportions the past year, and, under the direction of the Curator of Botany, who has voluntarily taken charge of it, has introduced methods and inaugurated facilities that its increasing importance seem to demand. Large cabinets for the storage of cuts and electrotypes have been constructed near the Botanical Laboratory, and all of the blocks illustrating the different publications of the Museum have been inventoried, inscribed and stored in intelligent order, whence they may be withdrawn easily from time to time, if required. The work in photography was discontinued for a part of the year, owing to the absence of the operator on the expedition in the Northwest. The work of this division, however, is becoming constantly of a higher character, and, as instruments and appliances are provided, its scope is enlarged, and the Museum does

not need to employ outside agencies in this direction. The following table shows the actual results only of a large series of detailed operations:

Department.	Negatives.	Prints.	Lantern Transparencies.
Anthropology,	141	110	72
Botany,	74	14	66
Geology,	133	85	135
Zoology,	64	377	72
On Expeditions,	400		
	812	586	345

PRINTING.—The printing office is one of the busy money-saving sections of the institution. The printers have been constantly at work, new type and increased facilities have been provided, and the section is now prepared to do all the printing of the Museum except the publications. The two exchange catalogues were printed in the Museum as were all of the lecture announcements, advertising cards, large labels, stationery, etc., etc. The following figures show the number of impressions in the way of label printing and general jobs:

	Labels.	Other Impressions.
Anthropology,	1,976	13,450
Botany,	1,071	8,810
Geology,	2,405	.....
Graphic Arts,	424	.....
Industrial Arts,	456	100
Zoology, . . . . .	.....	.....
Director's Office, . . . . .	.....	26,286
Library,	140	5,935

ADMISSIONS.—The total attendance for the year was about 10,000 less than the year preceding. The paid attendance shows a decrease: the admissions on free days was about the same, while the free admissions on pay days was 3,000 larger than last year. This increase is almost entirely of school children and students. The public school authorities have made greater efforts to induce pupils to attend the Museum this year, and a great many classes accompanied by their teachers have visited the institution for observation and study; but probably the greatest factor in the sharp increase in the attendance of school children has been the offering by Mr. H. N. Higinbotham, of a series of cash prizes for the best written paper by a pupil of the public schools of the State, on the Museum and its collections. This contest has awakened a very lively interest on the part of the pupils of the public schools, more especially, of course, in Chicago where the Museum was more accessible. The rules of the contest were announced in a circular issued by Mr. Higinbotham, as follows:

PRIZES FOR COMPETITIVE ARTICLES UPON THE
FIELD COLUMBIAN MUSEUM.

Believing that it will lead to a higher appreciation of the aids which the Field Columbian Museum offers for the education of the children and youth in our public schools, that it will arouse in their minds a deeper interest in the collections of the Museum, and that it will collect an interesting and valuable amount of descriptive and suggestive literature, I beg to offer to the pupils of the public schools of the State of Illinois a series of prizes for papers or essays upon the Museum, under the following conditions:

The prizes offered are as follows:

One prize of \$50.00.	One prize of \$30.00.	Five prizes of \$10.00 each.
One prize of \$40.00.	Two prizes of \$15.00 each.	Twenty prizes of \$5.00 each.

Any pupil in regular attendance in any grade or department of the public schools of the State of Illinois shall be eligible as a competitor. The scope of the essays is indicated by the following suggestions: A general description of the Museum, based upon actual visitation thereof; the interior of the buildings, and the nature of the materials upon exhibition; the method of installation; any exhibits or collections that may appeal to the individual writer as of peculiar interest or value. The article should consider the value of special collections therein found, or of the Museum as a whole, as aids to education. The foregoing is intended to indicate the range of thought which the essays may present, rather than to be a specific synopsis of what must be included in each paper. Each essay will contain not less than 2,000 nor more than 3,000 words. It should be written, or type-written, upon cap paper, using only one side of each sheet. It should be forwarded by mail to F. J. V. Skiff, Director of the Field Columbian Museum in Chicago, on or before the first day of October, 1897, as attested by the mailing stamp of the post-office in which it is registered, carefully sealed. The essay must not be signed, but it should be accompanied in the same envelope by a letter in which shall be stated the full name and age of the writer, and the designation of the school and grade to which he belongs. These statements must be attested in writing by the teacher of the grade, or the principal of the school, who should also certify that the essay has been produced in good faith and without assistance. A committee of three will be selected to award the prizes. The essays, as received by the Director of the Museum, will be numbered, and will be transmitted to the Committee of Award, who will know them by number only, and will not be cognizant of the names of the authors, nor the schools to which they may belong. The decisions of the committee will be announced in the press of Chicago on the 24th of December, 1897, and, if possible, the prizes will be handed to the successful competitors on Christmas Day. But the committee will make no award unless, in its opinion, the essay under consideration is fairly entitled thereto by reason of its merit, and not for lack of competitors. It must be understood that all essays submitted in this competition shall remain in my possession subject to such future disposition as I may direct.

H. N. HIGINBOTHAM.

CHICAGO, May 29, 1897.

CHICAGO, May 24, 1897.

HON. H. N. HIGINBOTHAM, Chicago, Ill.:

My Dear Sir: The Board of Education at its last meeting, held May 19, 1897, approved the proposition which you submitted, offering prizes to the pupils in the public schools of Chicago for papers or essays on the Field Columbian Museum, for the purpose of arousing in the minds of the pupils a deeper interest in the collections in the Museum. It is understood that the essays shall include a general description of the Museum, based upon actual visitation; of the interior of the building; of the character of the material on exhibition; of the method of installation; and such strikingly interesting exhibits or collections as may appeal to the individual writer. Also an opinion as to the value of the special collections; or of the Museum as a whole as an aid to education.

The Board has authorized the principals of the schools to distribute circulars of information and to make the necessary arrangements in the schools.

TO THE BOARD OF EDUCATION OF THE CITY OF CHICAGO:

The Committee on School Management reports that they are in receipt of a communication from Mr. H. N. Higinbotham, offering the following prizes for the best essays on the "Field Museum:"

One prize of \$50.00.	One prize of \$30.00	Five prizes of \$10.00.
One prize of \$40.00.	Two prizes of \$15.00.	Twenty prizes of \$5.00.

It being understood that each essay that wins a prize must have merit satisfactory to the committee—*i. e.*, that if only thirty essays were submitted and some of them did not have merit, then the whole \$300 would not be subject to distribution.

The committee recommends the acceptance of the proposition.

COMMITTEE ON SCHOOL MANAGEMENT.

CHICAGO, May 19, 1897.

The above is a copy of the order as passed by the Board.

Yours truly,

A. G. LANE.

Superintendent of Schools.

SPRINGFIELD, Ill., May 17, 1897.

HON. H. N. HIGINBOTHAM, Chicago, Ill.:

Dear Sir: I heartily endorse your plan for the distribution of prizes for essays upon the Field Columbian Museum, to be written by pupils in the public schools in Illinois, and I hereby commend its objects to the pupils and teachers of the State.

I trust that your offer may receive that hearty response from them which your noble generosity and kindly interest in the cause of education so much deserve.

The Field Columbian Museum is a most worthy institution—a fitting monument to the liberality and patriotic spirit of its founder.

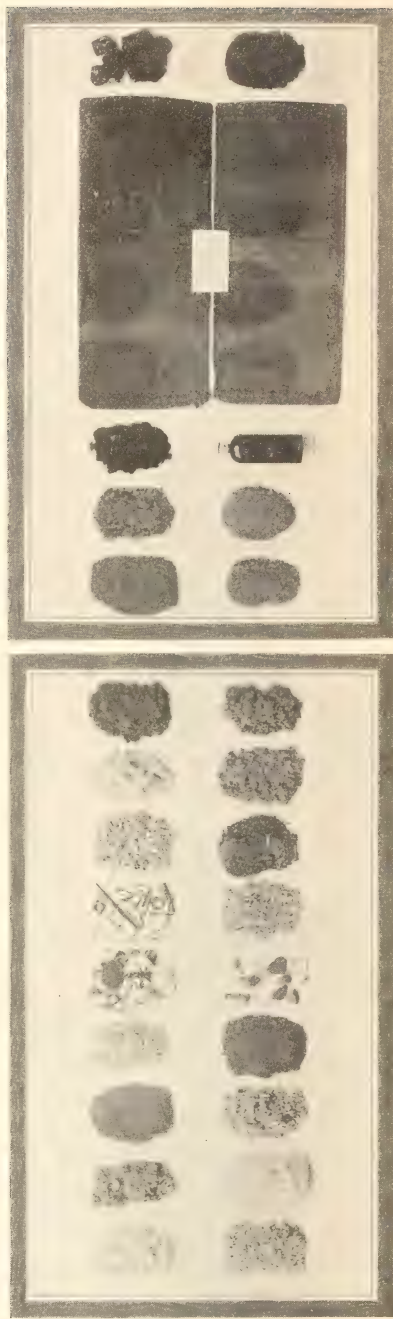
A hearty co-operation in your plans for essays on the Museum by the pupils of the State will result in making them more familiar with the wealth of its scientific treasures, and in inspiring them to a broader knowledge and a higher culture.

In behalf of the youth of the State whose advancement you seek to promote, permit me to express my heartfelt acknowledgments.

Respectfully yours,

SAMUEL M. INGLIS,

Superintendent of Public Instruction.



PLAN OF INSTALLATION IN SUITE—DEPARTMENT OF BOTANY.

PL. IX. ECONOMIC BOTANY. INSTALLATION IN SUITE-COTTON AND ITS PRODUCTS.

The elements of this installation comprise: Cotton plants at each period of cultivation; photographs of the fields and factories, and specimens showing the result of each process in ginning and converting the seed into oil. Each specimen is mounted upon a glass plate under which is a label describing the process producing it, and the use made of each product or by-product.

The elements of this installation comprise: Cotton plants at each period of cultivation; photographs of the fields and factories and apparatus showing the result of each process in ginning and converting the seed into oil. Each specimen is mounted upon a glass plate in a case which is labeled describing the process producing it, and the use made of each product or by-product.

The responses to this invitation have been entirely satisfactory, and the committee to decide the result will be appointed and enter upon its duties within a few days. Among the visitors to the Museum in bodies during the past year may be noted the following: 134 delegates to Universal Postal Congress; 47 American Institute Mining Engineers; 181 pupils, Class of Zoology, Hyde Park High School; 127 pupils from City Normal School; 84 pupils and 1 teacher from City Normal School, seventh grade; 69 pupils and 1 teacher from Primary Normal School; 136 pupils and 1 teacher from Cook County Normal School; 119 pupils and 3 teachers from Burroughs School; 72 pupils and 1 teacher from Normal Practice Training School; 75 pupils and 4 teachers from Hyde Park High School; 60 pupils from the Farren School; 114 pupils and 2 teachers from West Division High School; 124 pupils and 6 teachers from J. N. Thorpe School; 59 pupils and 6 teachers from Helen Heath Settlement School.

Herewith are submitted financial statements, analysis of attendance, list of accessions, names of members, etc., etc.

FREDERICK J. V. SKIFF,

DIRECTOR.

FINANCIAL STATEMENT.

RECEIPTS AND DISBURSEMENTS

During the Year Ending September 30, 1897.

RECEIPTS.

Cash in Treasurer's hands, Sept. 30, 1896	\$ 1,036.50
Petty cash on hand, Sept. 30, 1896	739.95
Dues of Members—	
Corporate	\$ 290.00
Annual,	5,110.00
South Park Commissioners,	5,400.00
A. C. Bartlett (acct. McCormick Fund),	15,000.00
Sale of sundry articles,	5,000.00
Interest on investments,	289.63
Chicago City R. R. Co.,	39,346.78
Interest on Bank Balances,	2,250.00
Admissions,	138.14
Check Rooms,	5,016.15
Sale of Guides,	1,110.15
Sale of Securities,	429.25
	<u>35,000.00</u>
	\$110,756.55

DISBURSEMENTS.

Salaries,	\$43,384.28
Guard Service,	11,424.58
Janitor Service,	7,089.32
Fire Protection—	
Additions to equipment,	\$ 781.25
Wages of Firemen,	2,760.00
Uniforms and Sundries,	74.09
	3,615.34
Heat and Light—	
Additions to plant,	323.74
Wages of Engineer and Assistants,	2,981.44
Fuel,	3,753.38
Supplies	730.28
	<u>7,788.84</u>
<i>Carried forward,</i>	\$73,302.36

<i>Brought forward,</i>		\$73,302.36
Repairs and Alterations—		
Wages of Carpenters, Painters and Roofers	\$6,977.22	
Materials used—Paints, Oils, Hardware,		
Glass, Lumber, Plaster,	1,247.24	8,224.46
Furniture and Fixtures—		
Cases and Bases,	3,478.20	
Building Fixtures,	190.07	
Sundries,	140.49	3,808.76
The Library—		
Books and Periodicals Purchased, . . .	883.80	
Binding,	110.60	
Sundries,	93.03	1,087.43
Sections of Printing and Photography—		
Printing—Type purchased,	194.18	
Supplies,	7.65	
Photography—Stock purchased,	76.48	
Supplies,	159.92	438.23
Collections and articles purchased,		5,579.73
Installation Expenses,		3,342.51
General Expense Account—		
Freight, Expressage and Teaming, . . .	1,662.37	
Stationery, Postage, Telegrams and Tele-		
phone,	1,134.09	
Lecture Course Expenses,	57.34	
Publications,	2,597.63	
Expeditions,	1,921.40	
Sundries,	1,648.57	9,021.40
		<hr/>
		\$104,804.88
In Treasurer's hands, Sept. 30, 1897,	5,211.72	
Petty Cash on hand, Sept. 30, 1897,	739.95	5,951.67
		<hr/>
		\$110,756.55

ATTENDANCE AND RECEIPTS FOR THE YEAR ENDING SEPT. 30, 1897.

ATTENDANCE.

Total Attendance;		220,283
Paid Attendance—		
Adults,	19,625	
Children,	1,104	20,729
Free Admission on pay days—		
School Children,	6,952	
Students,	1,429	
Teachers,	372	
Members—Corporate,	60	
Annual,	532	
Officers' Family,	59	
Special,	204	9,608
Admission on Free Days—		
Saturdays,		54,938
Sundays,		135,008
Highest Attendance on any day (June 20, 1897),		5,116
Lowest " " " (March 23, 1897),		8
Highest Paid " " (July 5, 1897),		302
Average Daily Admissions (365 days),		603
Average Paid Admissions (262 days),		79

RECEIPTS.

Guides sold—1,717 at 25 cents,	\$ 429.25
Articles checked—22,203 at 5 cents,	1,110.15
Admissions,	5,016.15
	<hr/>
	\$6,555.55



EGYPTIAN HALL—FIELD COLUMBIAN MUSEUM.

ACCESSIONS.

FROM OCTOBER 1, 1896 TO SEPTEMBER 30, 1897.

DEPARTMENT OF ANTHROPOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

AMERICAN TYPE FOUNDERS CO., Chicago, Ill.

1 type form, 1 set key, 1 electrotpe, 1 composing stick and make-up rule.

ARMOUR, ALLISON V., Chicago, Ill.

2 sculptured collars, 1 sculptured stone, 1 clay pipe—Mexico.

1 large rattlesnake sculptured in stone, diameter 25 inches—Mexico.

1 block of sculptured stone from an Aztec Hall—Mexico.

50 bells, trumpets, shells, beads, vases, etc—Mexico.

65 archeological specimens, earthen vessels, candle sticks, water bottle, mica, metate, copper instruments, clay beads, green stone, stone blades, etc—Mexico.

142 archeological specimens, bells, trumpet, shell ornaments, beads, disks, white stone vase, etc—Mexico.

9 stone and shell beads, 1 copper hawk bell, 1 fragment of bas-relief—Chichen-Itza, Yucatan.

Burial urn, carved stone, earthen jar, terra-cotta masks, potsherds, personal ornaments, etc—Chichen-Itza, Yucatan.

ARVEDSON, G. F., Carpenterville, Ill.

1 quartzite knife, 14¾ inches long.

AYER, E. E., Chicago, Ill.

7 California baskets, 1 Northwest Coast wooden box carved.

1 flaked implement, 1 green stone pendant.

1 stone bead, 1 stone implement, 2 ivory handles.

1 Eskimo drill mouthpiece.

1 Indian knife sheath.

BINNER ENGRAVING CO., Chicago, Ill.

8 specimens illustrating the zinc etching process.

4 pictures in colors printed from half-tones.

BROWER, J. V., St. Paul, Minn.

10 flints, 4 potsherds—Kansas River, Kas.

BURCHARD, E. L., Field Columbian Museum, Chicago, Ill.

1 Souvenir Bulletin, Machinery Hall Day, at World's Columbian Exposition, composition of which was set on the Linotype machine.

DAVIS, H., Chicago, Ill.

1 picture of melons made by colortype process.

DOHMEN, U. A., Field Columbian Museum, Chicago, Ill.

Sample of corrected and uncorrected proof.

DONEVAN, J. F., Chicago, Ill.

1 large stone resembling a grooved ax—Wain Wisconsin.

DUC de LOUBAT, New York, N. Y.

1 Mexican Codex Vatican No. 3773 reproduced photomicrographically.

FIELD COLUMBIAN MUSEUM.

Collected by D. G. Elliot, African Expedition:

161 specimens of Ethnological material—Somaliland, Africa.

Collected by O. C. Farrington:

1 Obsidian core, 1 implement, 1 flake, 1 fragment—Mexico.

Collected by E. L. Burchard:

5 photographs of views in Lithographing Rooms of P. F. Pettibone & Co., Chicago, Ill.

3 wood cuts, 1 half tone with wood finish.

Collected by E. H. Thompson:

25 relics of stone, shell and pottery—Chichen-Itza T'ho and Progreso, Yucatan.

469 beads, 67 copper bells, 10 earthen vessels.

1 stone idol, 1 stone head, 4 Jadeite armlets, etc—Chichen-Itza, Yucatan.

Collection of Jadeite and other ornaments, (71 specimens and 2 lots).

2 fragments of idols, 2 hammer-stones, 2 rough flaked stones, 1 cord holder—Chichen-Itza, Yucatan.

1 Alabaster vase (broken), 1 earthen vase, (broken.)

1 handled vase (broken), 1 lot of skull bones—Chichen Itza, Yucatan.

2 sculptured stone blocks, 1 earthen vase and cover,

1 package of sand found with vase, small bits of painted pottery—Chichen-Itza, Yucatan.

Various articles of clay and stone—Chichen-Itza, Yucatan.

Collected by Miner W. Bruce:

6 dog skins, 1 skeleton—Alaska.

Purchases:

1 wooden figure representing a bear, carved from cedar wood—Haida Indians, (purchased from James Deans, Victoria, B. C.)

59 specimens (3 lots,) bowls, strainers, cloth, tattoo, instruments, shells, nuts, etc.—Samoa, (purchased from Gustavus Goward, Chicago, Ill.)

3 plaster casts of feathered serpent-in-relief, (purchased from W. B. Melville, Chicago, Ill.)

4 porcelain transparencies, 4 old Germantown pottery, (purchased from E. A. Barber, Philadelphia, Pa.)

18 casts of trepanned skulls—Peru, (purchased from Delancey W. Gill, Washington, D. C.)

17 pieces of anthropometric apparatus, (purchased from R. Mathieu, Paris, France).

1 tobacco pipe, 1 witch doctor's rattle, 1 wooden figure, 1 wooden figure fetisch, 1 gun case, 1 woven bag, 2 antelope horns, 1 brass collar, 3 small elephant tusks, 8 iron knives, 2 brass knives, 3 swords, 1 brass collar—Congo Basin, Africa, (purchased from W. H. Leslie, Evanston, Ill.)

11 specimens illustrating Japanese color printing—Tokyo, Japan, (purchased from Ernest W. Clement, Tokyo, Japan).

1 Blackfoot war bonnet—Blackfoot Reservation, (purchased from R. N. Wilson, Macleod, Alberta.)

Large beam scale, Arabian inscription—Arabia, (purchased by E. E. Ayer, Chicago, Ill.)

1 Pali book, (purchased from Miss Annie M. Ricketts, Delphi, Indiana).

26 portraits of famous printers, engravers and etchers, (purchased from R. M. Lindsay, Philadelphia, Pa.)

FLANAGAN & BIEDENWEG, Chicago, Ill.

2 framed specimens of art window glass.

FOSTORIA GLASS CO., Moundville, W. Va.

Tools, and pressed, cut, engraved and etched glass.

GOWARD, GUSTAVUS, Chicago, Ill.

Porcelains, pottery, textiles, etc—Korea and Samoa, (for examination).

Rejected examination papers from Government Official—Seoul, Korea.

HARRISON, WM. PRESTON, Chicago, Ill.

Ethnological specimens from various islands in the South Pacific Ocean, (loan.)

- HARPER & BROTHERS, Franklin Square, New York, N. Y.
 17 wood engravings.
 11 wood engraver's tools, wood blocks, and designs engraved to various stages of completeness.
- HELIO TYPE PRINTING CO., Boston, Mass.
 21 pictures showing work done by the Helio type process.
- HERZBERG, ERNST, Chicago, Ill.
 1 book showing hand and plate tooled calf binding, style of the eighteenth century—book of common prayer printed in Oxford, England, in 1760.
- HIGINBOTHAM, H. N., Chicago, Ill.
 1 flint drill—St. Louis, Mo.
- HUTCHINSON, C. L., Chicago, Ill.
 164 pieces of earthenware, 30 pieces of metal articles, 10 lots of metal and miscellaneous fragments, 1 vase—Italy.
 11 pieces of earthenware, 3 bronze vessels, 1 bed—Rome.
 1 rough stone sarcophagus without a lid. 1 large stone bone or mortar with broken lid—Ancient Rome.
- INTERNATIONAL POTTERY CO., Trenton, N. J.
 24 pieces of porcelain, consisting of plates, pitchers, cups, saucers, etc—Trenton, N. J.
- JOHNSON, L. K., Wheeler, Ind.
 1 grooved stone ax, 2 corals, 13 arrow points.
- KELLOGG NEWSPAPER CO., A. N., Chicago, Ill.
 14 specimens illustrating the stereotyping process.
 4 specimens illustrating the electrotyping process.
- LLOYD & CO., GEORGE E., Chicago, Ill.
 6 cuts of electrotyping and electrotyping machinery.
- LONG, TALBOTT, Marshalltown, Iowa.
 1 ox horn with pictorial decoration, (for examination).
- MANUAL TRAINING SCHOOL, Chicago, Ill.
 1 model of grain elevator, (deposit).
- MOORE, CLARENCE B., Philadelphia, Pa.
 1 large earthenware vessel, 2 small cups in clay, 1 shell pin, 1 lot of small shell beads, 1 conch shell vessel, 13 large shell beads—Georgia and Florida.
 4 shell vessels, 9 stone fragments, 19 fragments of pottery, lot of shell beads, etc—Georgia and Florida, (exchange).
 2 earthen vases, 37 fragments of earthen vases—Georgia, (exchange).
- MOOREHEAD, W. K.
 46 specimens of ancient Pueblo pottery and stone implements, Southern Colorado.
- McILROY, H. M.
 1 cast of large stone pipe, Fort Atkinson, Wis.
- McMURTRIE, WM., New York, N. Y.
 Samples of wool exhibited at World's Columbian Exposition.
- OHIO VALLEY CHINA CO., Wheeling, W. Va.
 44 finished and unfinished china-ware, material, moulds, etc.
- ONONDAGA POTTERY CO., Syracuse, N. Y.
 47 pieces of porcelain, consisting of plates, dishes, bowls, jugs, cups, etc.
- OTTOMAN LITHOGRAPHING CO., J., New York, N. Y.
 4 lithograph stones, 5 pieces of tracing paper, 3 engraving points, etc.
- PETRIE, W. M. FLINDERS, London, England.
 39 terra cotta vases, 2 stone vases, 5 stone offerings.
 22 fragments of stone vessels, statues, etc., showing materials used—Egypt, (exchange).
- POSTEL, HENRY, Chiapas, Mexico.
 150 collections of antiquities and other articles,—Mexico, (for examination).

- PRANG & CO., L., Boston, Mass.
 23 book lithograph stone, progressive proofs, lithograph ink, etc.
- RINGER & CO., P., Chicago, Ill.
 15 books illustrating progressively the different steps in bookbinding.
- ROOKWOOD POTTERY CO., Cincinnati, Ohio.
 7 vases, 2 ewers, 1 loving cup.
 4 samples of Florida and Hanging Rock clay, flint and spar.
- SCHLESINGER, MRS. B. F., Chicago, Ill.
 Suit of Japanese armour and bamboo chest for containing it,—Japan.
- SCHLESINGER, B. F., Chicago, Ill.
 Scales for weighing silk,—China.
- STEUBENVILLE POTTERY CO., Steubenville, Ohio.
 20-toy toilet set, fruit dishes, pitchers, samples of clay, etc.
- TRAVERS, F. A., Racine, Wis.
 1 human skull from mound,—Illinois, (for examination).
- U. S. WEATHER BUREAU, Auditorium Tower, Chicago, Ill.
 2 engraved chalk plates.
 2 stereotyped plates, original copy and printed results.
- WANGANUI PUBLIC MUSEUM, Wanganui, New Zealand.
 4 Maori fish hooks,—New Zealand.
- WEIL, C. H., Chicago, Ill.
 1 split stone with iron handle, 1 black earthenware pipe,
 1 black earthenware tablet,—Mexico.
- WORLD'S COLUMBIAN EXPOSITION, from Industrial Art Department.
 Collection of pottery representing the modern industry in Mexico.
 Native carpenters' tools, principally planes,—from Johoe Commission.
 Coconut fibre and articles made from the same,—Wilumbula Fibre
 Mills.
 Chinese fiddle and bow.
- WORLD'S COLUMBIAN EXPOSITION, Department of Archeology and Ethnology.
 1 Assyrian Cuneiform inscribed brick.
- WYMAN BROTHERS, Evanston, Ill.
 500 stone, 220 copper, and 2 iron implements,—Wisconsin, (loan).

DEPARTMENT OF BOTANY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- AYER, E. E., Chicago.
 1 canaigre root.
 $\frac{1}{2}$ lb. canaigre chips,—Los Angeles, Calif.
- CHAMBERS, MRS. WM. NESBITT, Erzerum, Turkey.
 166 herbarium specimens (114 species), (exchange).
- CALKINS, W. W., Chicago.
 4 vol. collections of Lichens (3 of N. America, 1 of Europe), (deposit).
- COAHONIA LUMBER CO., Earnest P. O., Miss.
 16 planks of various Mississippi timbers—Matteson, Miss.
- FIELD COLUMBIAN MUSEUM.
 Collected by Dr. C. F. Millsbaugh, for Department of Botany.
 46 specimens of fungi,—Thornton, Ill.
 474 specimens of fruits (19 species), Mt. Carmel, Ill.
 20 winter twigs (8 species), Mt. Carmel, Ill.
 4 samples illustrating the ginning of cotton,—Coahonia, Co., Miss.
 27 specimens showing the ginning of cotton and the extraction of oil from the seed—Clarksdale, Miss.
 445 specimens of logs, log sections, winter twigs, fruits, leaves, etc., illustrative of North American forestry—Mississippi.

Collected by E. H. Thompson, Merida, Yucatan.
1 dried plant—Balche—Chichen-Itza, Yucatan.

Purchases:

- 33 bromide enlargements of forest trees, (purchased from James Inglis, Chicago, Ill.).
- 576 herbarium specimens, dried plants,—Florida, (purchased from Geo. V. Nash, Columbia University, New York, N. Y.).
- 573 specimens dried plants for herbarium and exchange—Tekax, Xbac, Progreso, (purchased from Dr. G. F. Gaumer, Izamal, Mexico).
- 160 specimens dried plants (80 species), islands of L. California, (purchased from A. W. Anthony, San Diego, Cal.).
- 314 herbarium specimens (dried plants)—Mexico; 630 specimens Mexican plants (210 species)—Mexico (purchased from C. G. Pringle, Charlotte, Vermont).
- 14 lantern slides of Brazilian scenery, (purchased from T. H. McAlister, New York, N. Y.).
- Personal herbarium of Dr. Arthur Schott, (purchased from Mrs. Augusta Schott, Washington, D. C.).
- 290 specimens of dried plants for herbarium,—South Africa, (purchased from Prof. Karl Schuman, Berlin, Germany).
- 207 specimens of dried plants for herbarium—Mississippi, (purchased from Chas. L. Pollard, Washington, D. C.).
- 189 specimens of dried plants for herbarium—Orinoco, (purchased from R. W. Squires, Minneapolis, Minn.).

FERNO, F. E., Barton, N. Y.

- 3 specimens of plants (for examination—to be determined for him).

IOWA AGRICULTURAL COLLEGE, Ames, Iowa.

- 100 herbarium specimens (96 species), (exchange).
- 135 herbarium specimens of dried plants, (exchange).

JEPSON, W. L., Berkeley, Calif.

- 2 new species of plants, types—California.

LEMOYNE, F. J., Chicago, Ill.

- 366 herbarium specimens, (122 species)—South Minnesota.

LARKIN, MRS. T. J., Chicago, Ill.

- 1 piece of Carajo or Porcho wood—Fort Baird, Mexico.

LANSING, O. E., Field Columbian Museum, Chicago, Ill.

- 3 specimens of fungi—South Park, Chicago, Ill.

MILLSPAUGH, DR. C. F., Field Columbian Museum, Chicago, Ill.

- 82 dried plants, herbarium specimens, (exchange)—New York and West Virginia.
- 160 dried plants, herbarium specimens, (exchange)—New York and West Virginia.
- 151 dried plants, herbarium specimens, (exchange)—various localities.

NEW YORK BOTANICAL GARDENS, Columbia University, New York, N.Y.

- 41 unmounted photographs, (loan).
- 22 herbarium specimens, (17 species of dried plants)—Goyaz, Brazil, (exchange).
- 39 herbarium specimens, dried plants—British Guiana, (exchange).
- 377 herbarium specimens, dried plants—Florida, (exchange).
- 339 herbarium specimens, dried plants—South America, (exchange).

RYERSON, MARTIN A., Chicago, Ill.

- 1120 specimens of lichens, (27 volumes of North America, and 7 volumes of European).

RUMBARGER, J. L. LUMBER CO., Dobbin, W. Va.

- 60 specimens of plain and fancy boards.

SCHUMANN, PROF. KARL, Berlin, Germany.

- 1 herbarium specimen, (*Eupatorium drepanophyllum* type)—Cozumel, Yucatan.

- SCHNECK, DR. J., Mt. Carmel, Ill.
 9 herbarium specimens and fruits of pecan and bur oak—Mt. Carmel, Ill.
 5 specimens of fruit of *Gymnocladus Canadensis*—Mt. Carmel, Ill.
 1 photograph of hybrid pecan—Burnett Schoolhouse.
- SMITH, JOHN DONNELL, Baltimore, Md.
 25 herbarium specimens of Euphorbiaceae, (loan for examination).
- STONE, FRANK B., Chicago, Ill.
 1 piece yellow bark, oak—N. E. Arkansas, (for examination).
- U. S. NATIONAL HERBARIUM, Washington, D. C.
 1098 herbarium dried plants, (366 species)—Idaho, (exchange).
 100 herbarium specimens of Euphorbiaceae, (for examination).
- WHITE, MRS. WOOD, Chicago, Ill.
 2 large specimens of lichens—Florida.
- WETMORE, O. S., Chicago, Ill.
 1 branch of smooth alder, (*Alnus serrulata*, wild).
 1 branch Ginko, (*Salioburya adiantifolia*)—Illinois, (for examination).

DEPARTMENT OF GEOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- ARKANSAS STATE UNIVERSITY, Fayetteville, Ark.
 2 specimens of Sulphur—Sicily, (exchange).
 1 specimen of Azurite—Arizona, (exchange).
 1 specimen of Wulfenite—New Mexico, (exchange).
 1 specimen of Datolite—Italy, (exchange).
- AYER, ED. E., Chicago, Ill.
 1 specimen of Rubellite in Lepidolite—San Diego county, Cal.
 1 specimen of Dumortierite, Clip—Arizona.
- BAILEY, S. C. H., Oscawana-on-Hudson, N. Y.
 19 specimens of meteorites, including Parnallee, Mains, Bremerwoode, Sigena, Shergotty, Chantonay, LePressoir, Oynchimura, San Emigdio, Heredia, Haviland, Pittsburg, Lime Creek, Nentmansdorff, Santa Rosa, Granada, Mordinovka and Dandapur, (exchange).
- BARBER, M. D., De Kalb, Ill.
 50 specimens of Niagara and Trenton fossils, (17 species), (exchange).
 10 specimens stalagmitic limestone, (exchange).
- BELL GEORGE, Denver, Colo.
 1 Canon Diablo Meteorite—Canon Diablo, Arizona.
- BEARDSLEY, J. W., Lockport, Ill.
 69 specimens Niagara fossils, representing 31 species—Chicago Drainage Canal.
- BOSTON & COLORADO SMELTING CO., Argo, Colo.
 14 specimens of mattes and slags, illustrating the process of smelting gold, silver and copper.
- BOYER, PROF. J. F., Fort Bayard, N. M.
 1 specimen of limestone, illustrating water erosion—Shore of Lake Michigan, near Fort Sheridan, Ill.
- BROUILLETTE, BERNARD, Vincennes, Ind.
 1 specimen of supposed meteorite, (for examination).
- BROWN, S. P., Jamesport, Mo.
 5 pieces of Marcasite, (for examination).
 1 piece of Calcite, (for examination).
 1 piece of Quartz with black Tourmaline, (for examination).
 1 piece of Serpentine, (for examination).
 7 pieces of Hematite, (for examination).
 12 specimens of Blende and Pyrite in limestone, (for examination).

CALDWELL, DR. CHAS., Chicago, Ill.

1 specimen of Marl—Kansas, (for examination).

CHICAGO, UNIVERSITY OF, Chicago, Ill.

16 specimens of native crystallized copper—Lake Superior, (exchange).

6 specimens of native silver—Lake Superior, (exchange).

2 specimens of malachite and azurite—Bisbee, Arizona, (exchange).

1 specimen of calcite—Guanajuato, (exchange).

COOPER, W. R., Chicago, Ill.

1 specimen of Marcasite.

COSMOPOLITAN MAGAZINE, Irvington-on-Hudson, N. Y.

9 photographs of views in Mexico, (loan).

CRAWFORD, SAM., Chicago, Ill.

2 specimens of rock flour, (for examination).

CREIGHTON, JOS. H., Lithopolis, Ohio.

1 fragment of supposed meteorite, (for examination).

CROSBY, PROF. W. O., Boston Society Natural History, Boston, Mass.

1 diorite nodule and aureole in seam-face Granite—Higham, Mass.

CRAMER, GEORGE, Denver, Colo.

1 specimen of native Copper in Cuprite—La Salle Mountains.

DAY, DR. DAVID T., Washington, D. C.

1 fossil coral carrying Petroleum, from the Clinton limestone—Buffalo, N. Y., (weight 75 grams).

1 tube of Crude Petroleum, showing filtering through shale and consequent bleaching.

FIELD COLUMBIAN MUSEUM.

Collected by H. W. Nichols:

42 specimens, including volcanic rocks, Amygdaloidal, Metaplye, Veins, Prehnite—Brighton, Mass.

5 lithological specimens—Vicinity of Boston.

23 specimens illustrating structural and dynamical geology—Vicinity of Boston.

Purchases:

Reflection Goniometer and darkening attachment, (purchased from R. Fuess, Berlin, Germany).

1 specimen of Hematite concretion, (purchased from E. O. Syphers, Milton, Iowa).

100 specimens of Peruvian fossils—Kansas; 6 specimens of enlarged Grinoids—Hooser, Kansas; 1 specimen of sandstone Geode, (purchased from C. N. Gould, Winfield, Kansas).

18 photographs (prints) of scenes in Guanajuato, Mexico, (purchased from Winfield Scott, Trinidad, Mexico).

10 specimens of Niagara fossils—Chicago Drainage Canal, (purchased from Alex. Rand, Sag Bridge, Ill).

1 crystal of calcite—Joplin, Mo., (purchased from George L. English & Co., New York).

1 iron meteorite—Los Reyes, Mexico, (purchased from E. O. Matthews, Mexico City, Mexico).

Collection of minerals, flints, corals, etc., (purchased from A. J. Mears, Chicago, Ill).

1 slice (112.95 grams) from the Oscuro Mountain Meteorite, Oscuro Mountains, N. M., (purchased from R. C. Hills, Denver, Colo).

4 specimens of quartz concretions—Colossal Cave, Kentucky, 13 specimens of gypsum incrustation, 14 specimens Stalactites, (purchased from W. L. Hazen, Glasgow Junction, Ky).

2 fossil fishes—Green River, Wyo., (purchased from A. D. Young, Chicago, Ill).

1 tooth and jawbone of Titanotherium, 1 ammonite, 1 skull and fragment of Oreodon, 1 tooth—Bad Lands, S. D., (purchased from Charles H. Cutting, Sturgis, Ill.).

2 sections of Smith's Mountain and Deep Springs Farm Siderites, (purchased from S. C. H. Bailey, Oscawana-on-Hudson, N. Y.).

- FITCH, A. B., Magdalena, N. M.
1 specimen of Aurichalcite.
- GILL, GEORGE C., Chicago, Ill.
1 specimen of *Lepidodendron*—Beaver Creek, 12 miles from Olympian Springs, Ky.
- HATRY, OTTO, Kansas City, Mo.
20 specimens of fossil Brachiopod and Bryozoa and fossil Gasteropods—Kansas City and Wyoming, (exchange).
2 specimens Marcasite on limestone—Illinois, (exchange).
- HARPER, THOS., Bellevue, Pa.
12 fossil ferns and calamites, (exchange).
2 large slabs of slate showing fern and calamite impressions—Peters Creek, Washington Co., Pa.
- HARTWELL, GEO. H., Chicago, Ill.
1 fossil Mollusk from the Oolitic Limestone, Bloomington, Ind.
- HELDMAIER, E., Chicago, Ill.
1 four-inch cube of Blue Bedford Stone, from Blue Bedford Stone Co.
1 four-inch cube of "Raindrop" sandstone, from Portage Entry, Mich.
3 specimens of Basalt—Chehallis Co., Wash., (for examination).
- HOBBS, JAMES B., Chicago, Ill.
1 specimen of iron ore (Magnetic Iron Sand)—Benton, Ill., (for examination).
2 specimens iron ore, consisting of a magnetic iron sand from the sand dunes of Benton, Ill.
- HOLMES, JOHN R., Joplin, Mo.
1 specimen of lead, zinc ore, (estimated weight 150 lbs).
- HOLDEN, A. F., Salt Lake City, Utah.
32 specimens of Utah minerals, including topaz, orpiment, olivenite, clinoclasite, linarite, etc., (exchange).
- HOWARD, J. C., Faulkner, Md.
1 small specimen of vein gypsum, (for examination).
- HYDE PARK HIGH SCHOOL, Chicago, Ill.
1 specimen of Pseudo meteorite, (for examination).
- KOST, DR. J., Adrian, Mich.
1 Feloite boulder, (supposed meteorite), (for examination).
- KEAM, THOS. V., Holbrook, Arizona.
Portion of tooth of Mastodon—Keams Canyon, Ariz., (for examination).
- LAURIE, JOHN, Chicago, Ill.
4 specimens of supposed iron and tin ores—Shore of Lake Michigan, Chicago, Ill.
- LANDERS, CARLOS F., Pachuca, Mexico.
14 large photographs of mines and mining machinery of Real del Monte.
- LEWIS, L. C., Belvidere, Boone Co., Ill.
1 specimen of Pseudomorph of Turgite after Pyrite.
- L. N. A. & C. R. R. ("Monon Route"), Chicago, Ill.
3 specimens of porcelain clay, (Indianaite & Allophane), from Bedford, Lawrence Co., Ind.
- MARBLE HILL QUARRY CO., Marble Hill, Pickens Co., Ga.
2 specimens marble, (polished slabs)—Marble Hill, Ga.
- MELZER, JOHN, Morton Grove, Cook Co., Ill.
1 specimen of weathered limestone, illustrating jointing and weathering—Golf Park, Niles, Ill., (for examination).
- MILLSPAUGH, BASIL, Chicago, Ill.
1 fragment of Pyrite concretion in coal.
- MIX, JAMES,
1 specimen of zinc ore, (blende)—Lion Hills Mine, Marion Co., Ark.
- MUNRO, ALEXANDER, Chicago, Ill.
1 supposed meteorite, (for examination).

- MURDOCK, M. M., Wichita, Kan.
2 supposed meteorite specimens, (for examination).
- McLAUGHLIN, HAROLD M., Mason City, Iowa.
406 specimens of Devonian fossils, representing 32 distinct species—
—Hackberry Grove and Mason City, Iowa, (exchange).
- NORCROSS BROTHERS, Boston, Mass.
1 specimen of granite from Norcross Bros. quarries at Stony Creek, Conn.
1 four-inch cube of sandstone from the Kibbie Quarry, East Longmeadow, Mass.
1 four-inch cube of sandstone from the Maynard Quarry, East Longmeadow, Mass.
- NAGELVOORT, J. B., Chicago, Ill.
2 specimens of volcanic ashes—Island of Java.
- NELSON, C. N., Bayneville, Sedgwick Co., Kansas.
1 specimen of supposed meteorite, (for examination).
- PEEK, W. H., Chicago, Ill.
1 specimen of white feldspar from vein Granite—New Hampshire.
- PLATT, REGINALD, Fort Bayard, N. M.
1 specimen erosion form of sandstone.
- RICKERT, ELIZABETH, Madison, Ind.
1 fragment of supposed meteorite, (for examination).
- SMITH, HARMON B., Jamesport, Mo.
1 specimen of salts from mineral water, (for examination).
- SPAULDING, GEO. H., National Military Home, Marion, Ind.
1 fossil bone, (for examination).
- TAYLOR, WM., Rock Creek, Wyo.
1 piece of mineral soap.
1 specimen of underlying rock.
- U. S. NATIONAL MUSEUM, Washington, D. C.
4 specimens of Lava—Hawaiian Islands, (exchange).
1 specimen of Stalagmite—Georgia, (exchange).
1 specimen of Onyx marble—Arizona, (exchange).
1 specimen of Onyx marble—Lower California, (exchange).
1 specimen of Apatite—Norway, (exchange).
1 specimen of Williamsite—Pennsylvania, (exchange).
4 specimens of Marble—New South Wales, (exchange).
1 specimen of Serpentine—Maryland, (exchange).
1 specimen of Pyraxene—New Jersey, (exchange).
1 specimen of Pyraxene—New Mexico, (exchange).
6 specimens of building stone—United States, (exchange).
- VERMONT MARBLE CO., Proctor, Vt.
4 slabs, 9 x 16 inches, illustrating varieties of Marble.
- WARD, PROF. H. A., Rochester, N. Y.
1 section of ballinoo—West Australia Meteorite, (exchange).
- WESTGATE, LEWIS G., Evanston, Ill.
1 specimen of hexagonite—Edwards, St. Lawrence Co., N. Y.
- WILLIAMS, T. B., Chicago, Ill.
Clay—Reynolds Co., Mo., (for examination).
- WRITT, HENRY, Kidder, Mo.
1 horn core of fossil Elk—Capron, Boone Co., Ill.

DEPARTMENT OF HISTORY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- CLARKE'S PYRAMID & FAIRY LIGHT CO., London, England.
1 copy of the London Times, Nov. 9, 1796, with account of the address made by Washington on his resignation from Presidency.

PECK, JAMES W., Chicago, Ill.

Copy of the New York *Herald* of April 15th, 1865, containing the account of Lincoln's assassination.

DEPARTMENT OF TRANSPORTATION.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

AYER, E. E., Chicago, Ill.

2 pieces of rail with sleepers and stringers attached and 1 sleeper—Egypt.

BARTLETT, DR. JOHN, Chicago, Ill.

2 copies of the lines of the Egyptian boat.

1 model illustrating points of construction.

BLUMER, J. G., Sierra Madra, Cal.

6 sheets drawings and descriptions of old engines.

MANUAL TRAINING SCHOOL, Chicago, Ill.

1 working model of marine engine (deposit).

DEPARTMENT OF ORNITHOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

BARNES, MRS. D. L., Chicago, Ill.

89 bird skins, (8 of North America and 81 South America) (for examination).

BOYESEN, I. K., Chicago, Ill.

11 mounted birds—Norway.

BRANDLER, CHAS., Field Columbian Museum, Chicago, Ill.

2 mounted birds: *Porzana Carolina* and *Butes latissimus*—Indiana and Wisconsin.

5 birds in flesh: *Gallinago delicata*, *Porzana Carolina* and *Botaurus centiginosus*—Whiting, Ind.

1 *Zenaidura macroura* in flesh—Millers, Ind.

BRYAN, WM. A., Field Columbian Museum, Chicago, Ill.

1 bird in flesh: *Otocoris alpestris praticola*—Jackson Park, Chicago, Ill.

9 birds in flesh—83rd street, Chicago, Ill.

13 birds in flesh—Millers, Ind.

CHERRIE, GEO. K., Field Columbian Museum, Chicago, Ill.

3 bird skins: *Corvus Americano*—Iowa and Dakota.

1 bird skin: *Pedicaltes phasianellus campestris*—Dickinson, N.D.

CORY, PROF. C. B., Boston, Mass.

20 bird skins—Florida and California.

326 bird skins—Various localities.

DAY, CHAPIN A., Chicago, Ill.

1 hooded merganser in flesh: *Lophodytes cucullatus*—Dalton, Minn.

DARRAGH, DR. THOS., Field Columbian Museum, Chicago, Ill.

3 bird skins: *Chrysotis albifrons*, *Momotus lessonae* and *Paradisaea chrysoptera*.

1 mounted guinea fowl: *Numida meleagris*.

DOHMEN, U. A., Field Columbian Museum, Chicago, Ill.

1 screech owl in flesh—Jackson Park, Chicago, Ill.

FIELD COLUMBIAN MUSEUM.

Collected by George K. Cherrie:

- 68 bird skins (16 species)—Knoxville, Iowa.
- 38 bird skins—Suburbs of Chicago, Ill.
- 504 bird skins—West coast of Florida.
- 299 bird skins—Pulaski County, Ill.
- 2 bird skins: *Oreoxoptes montanus*—Corpus Christi, Texas.
- 6 birds—Glen Ellyn, Ill.
- 3 birds—Hegewish, Ill.
- 12 bird skins—Lake George, Ill., and Millers Station, Ind.

Collected by I. N. Travis:

- 7 mounted birds—Illinois and Indiana.

Collected by F. M. Woodruff:

- 17 bird skins (14 species)—Illinois.

FIELD COLUMBIAN MUSEUM.

Collected by D. G. Elliot, African Expedition.

- Collection of 296 specimens of birds, 126 species, 2 types—Somaliland and Ogaden.

Purchases:

- 73 bird skins representing 25 species and sub-species (purchased from R. S. Williams, Columbia Falls, Mont.)
- 500 bird skins, 227 species and sub-species (purchased from H. K. Coale, Chicago, Ill.)
- 16 bird skins, 1 violet green Cormorant, 1 Western Goshawk, 1 Western Henslow's Sparrow, 116 bird skins—various points (purchased from Chas. K. Worthen, Warsaw, Ill.)
- 587 bird skins, representing 282 species and sub-species—Costa Rica, C. A. 1 mounted bird, American Goshawk—Northern Wisconsin (purchased from George K. Cherrie, Field Columbian Museum, Chicago, Ill.)
- 17 birds in flesh, quail, prairie chickens and ducks for groups (purchased from Alf. Russell & Co., South Water street, Chicago, Ill.)
- 1 albinistic quail, mounted—Lavinia, Tenn. (purchased from T. D. Randall & Co., Chicago, Ill.)
- 1 hen and 12 ducklings in flesh for group (purchased from John Millbauch, Glen Ellyn, Ill.)
- 15 North American bird skins—various localities; 2 snowy heron, mounted; 1 Nelson's ptarmigan, mounted; 1 spotted owl, 1 snowy owl (purchased by C. B. Cory).
- 1 bird skin, Western Vesper Sparrow—Montana (purchased from E. E. Thompson).
- 1 mounted willow ptarmigan for snow group (purchased from Charles Brandler, Field Columbian Museum, Chicago, Ill.)
- 5 birds in flesh, 2 *Colinus virginianus*, 3 *Callipepla squamata* (purchased from Lepman & Heggie, Chicago, Ill.)

GAULT, B. T., Glen Ellyn, Ill.

- 1 bird nest *Merula migratoria*—Glen Ellyn, Ill.

JONES, ARTHUR B., Chicago, Ill.

- 1 bird skin, *Porzana Carolina*—near Chicago, Ill.
- 1 nest (in situ), *Passer domesticus*—near Chicago, Ill.

KAY, MRS. W. V., Chicago, Ill.

- 34 mounted birds in 2 cases (on approval for purchase).

KENKEL, LEWIS, Chicago, Ill.

- Nest and 3 eggs of the yellow warbler, *Dendroica aestiva*.

MORRISON, GEO. A., Fox Lake, Wis.

- 6 sets of 4 eggs each of the black crowned night heron.
- 2 nests in situ of the black crowned night heron.

MEEK S. E., Field Columbian Museum, Chicago, Ill.

- 1 bird skin, Western red-tail hawk—Petite Lake, Idaho.

RYERSON, M. A., Chicago, Ill.

- 1 mounted widgeon duck—Iowa.

SECTION OF PHOTOGRAPHY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

DEWEY, H. J., Englewood, Ill.

20 negatives of views in Museum.

FIELD COLUMBIAN MUSEUM EXPEDITION.

Made by C. E. Akeley:

292 negatives; animals, scenery, portraits, groups, camp life, etc.—Somaland.

Made by C. F. Millspaugh:

55 negatives, forest tree portraits, winter appearance—Mt. Carmel, Ill.

18 negatives, tree portraits and cotton scenes—Mississippi.

2 negatives of saw mills—Mattison, Miss.

26 negatives of forest views—West Virginia.

GRAPHIC PUBLISHING CO., Chicago, Ill.

24 negatives of views in Field Columbian Museum.

HARTFORD BROTHERS, Chicago, Ill.

9 negatives, interior of Field Columbian Museum.

SKIFF, F. J. V., Field Columbian Museum, Chicago, Ill.

20 negatives of views in Museum.

SPECIAL ACCESSIONS.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

DAWSON, N. E. Washington, D. C.

Early typewriting machine and stand, invented by C. L. Sholes, Milwaukee, Wis., and patented August, 1871. First lot manufactured on this patent by Remington & Sons, Ilion, N. Y., in 1873, of which first lot this is one.

FIELD COLUMBIAN MUSEUM.

Purchases:

1 Etruscan gold necklace of masks and beads; 30 masks } —Italy.
1 Etruscan gold fibula }

(Purchased by E. E. Ayer, Chicago, Ill.)

Silver fibula gold bands, 3 flat earrings.

2 pair (4) encrusted earrings, head and bust of Emperor Caligula—Italy
(purchased by C. L. Hutchinson, Chicago).

SMITH, EDWARD J., Chicago, Ill.

9 matrix specimens, 12 uncut, 4 polished, "Cyclops." Inclusion of red chalcidony in white chalcidony; found in opalescent rock—Estado Hidalgo, Mexico.

SPAULDING & CO., Chicago, Ill.

1 silver campaign dollar, with inscription.

THOMPSON, EDWARD H., Merida, Yucatan.

2 small silver coins.

WARD, JOHN, Chicago, Ill.

1 Egyptian coin.

WEARE, P. B., Chicago, Ill.

Nugget of placer gold, valued at \$250—Klondyke.

DEPARTMENT OF ZOOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

ARKELLS; W. GUY, Lake Geneva, Wis.

1 fox skin—Arizona.

AYER, E. E., Chicago, Ill.

1 raccoon.

BRITISH MUSEUM, London, England.

1 South American deer—1 Klipspringer (exchange).

CHOPE, E. B., Field Columbian Museum, Chicago, Ill.

5,921 beetles, 619 butterflies, 3 bats, 2 lizards (variety of species)—Illinois, Michigan, Wisconsin, Florida.

102 land and fresh water shells, 15 species of centipedes.

198 bees, wasps, etc., 165 grasshoppers and locusts, 355 bugs.

424 dragon flies, 205 flies (variety of species), from Illinois and Wisconsin.

CORY, C. B., Palm Beach, Fla.

1 alligator (young).

1 crocodile (young).

EDWARDS, PROF. A. MILNE, Paris Museum, France.

13 mammal skins (exchange).

FIELD COLUMBIAN MUSEUM.

Collected by D. G. Elliot, African Expedition:

193 mammal skins—Somaliland and Ogaden.

22 skulls and skeletons.

115 specimens, 33 species of fishes.

12 specimens, 7 species lizards; 6 specimens, 6 species snakes; 12 specimens, 4 species frogs; 1 specimen, 1 species turtle.

Purchases:

36 mammal skins—Iowa and Dakota (purchased from Geo. K. Cherrie, Field Columbian Museum, Chicago, Ill.).

1 skin of rhinoceros (purchased from T. W. Franklin, New York).

12 skins of musk oxen, 2 skeletons of oxen, 4 skins of polar bear—Arctic regions, Hudson Bay (purchased from Thos. Luce & Co., New Bedford, Mass.)

50 mammal skins, skulls, etc. (purchased from C. E. Akeley, Chicago, Ill.)

400 specimens of shells (78 species), taken mostly within the city limits of Chicago (purchased from T. Jansen, Chicago).

5 fur seal skins, consisting of 1 male, 1 female and 3 young (purchased from Prof. C. H. Gilbert, Stanford University, California).

Buffalo skin and skull (purchased from P. H. Lannan, Salt Lake City, Utah).

1 male Grevys zebra skin—Lake Rudolph, Africa; pair of horns of the brindled gnu, (purchased from Rowland Ward & Co., London, England).

10 specimens of corals, 2 shells, 1 starfish, 3 rattlesnake rattles (purchased from A. J. Mears, Chicago, Ill.)

32 shells from the shores of the Island of Samoa (purchased from Gustavus Goward, Chicago, Ill.)

FRANKLIN, T. W., New York, N. Y.

4 musk ox skins, 1 rhinoceros skin (for examination).

1 rhinoceros skull and 2 leg bones (for examination).

KAVANAUGH, R. B., Field Columbian Museum, Chicago, Ill.

1 snail, *helix hæmastoma*.

KENKEL, LOUIS, Chicago, Ill.

11 toads, 13 frogs, several cricket frogs.

3 Racine garter snakes—Chicago, Ill.

LARKIN, T. J., Field Columbian Museum, Chicago, Ill.

1 horned toad, *Phrynosoma* (alive)—Fort Bayard, Grant county, N. M.

LAWRENCE, W. T., Chicago, Ill.

2 shells—near San Diego, Cal.

MEEK, HIRAM, Hicksville, Ohio.

3 rattlesnakes, *Crotalus horridus*.

MEEK, S. E., Field Columbian Museum, Chicago, Ill.

50 species of fishes from Mazatlan, Mexico.

100 species of fishes from the fresh waters of North America.

50 species of fishes from the Atlantic coast.

25 species of North American reptiles.

- RINGLING BROTHERS, Baraboo, Wis.
 1 young chimpanzee (in flesh), *Anthropopithecus troglodytes*.
 1 skin and skeleton of brindled gnu.
 1 skeleton of camel.
 1 seal in flesh.
- RYERSON, MARTIN A., Chicago, Ill.
 1 Grevy zebra, 1 brindled gnu.
 1 hartebeast, 1 white-tailed gnu.
- SCHWABACHER, JESSIE M. AND LESLIE J., Chicago, Ill.
 1 porcupine fish skin, *Diodon maculatus guenther* (deposit).
- TRIGGS, AITCHISON & CO., Chicago, Ill.
 1 octopus—Pacific coast.
- U. S. NATIONAL MUSEUM, Washington, D. C.
 103 specimens of fish in alcohol (exchange).
- WALTON, LIEUT. E. S., Graham County, Arizona.
 1 lizard—Graham County, Arizona.
 2 horned toads, 6 lizards, 1 mountain boomer—Fort Bliss, Texas.
- WHITE, MRS. WOOD, Chicago, Ill.
 14 marine shells, Pecten (dead shells)—Fort McCrea, Pensacola, Fla.

THE LIBRARY.

(ACCESSIONS ARE BY EXCHANGE UNLESS OTHERWISE DESIGNATED.)

Books, Pamphlets and Serials.

- ADAMS, FRANK D., (the author), Montreal, Canada.
 Report on the geology of a portion of the laurentian area north of the Island of Montreal, with 2 pams.
- ALABAMA GEOLOGICAL SURVEY, University, Ala.
 Bulletin, no. 5.
 Iron making in Alabama.
 Report on the Valley Regions of Alabama, parts 1 and 2.
- ALABAMA INDUSTRIAL AND SCIENTIFIC SOCIETY, University, Ala.
 Proceedings, vol. 6, pt. 2, and vol. 7, pt. 1.
- ALDRICH, HON. J. FRANK, Chicago.
 Memoirs of the National Academy of Sciences, vol. 7, (gift).
- AMBROSETTI, JUAN B., (the author), Buenos Aires, Argentina.
 Contribución á la paleoetnología argentina, with 5 other pams.
- AMERICAN ACADEMY OF ARTS AND SCIENCES, Boston, Mass.
 Proceedings, current nos.
- AMERICAN ANTIQUARIAN SOCIETY, Worcester, Mass.
 Partial index to the proceedings, 1812-1880.
- AMERICAN ASSOCIATION OF INVENTORS AND MANUFACTURERS, Washington, D. C.
 Proceedings and addresses, 3rd annual meeting, with papers.
- AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, Salem, Mass.
 Proceedings, vol. 45, 1896.
- AMERICAN MICROSCOPICAL SOCIETY, Pittsburg, Pa.
 Transactions, vol. 17, (gift).
- AMERICAN MUSEUM OF NATURAL HISTORY, New York City.
 Annual report, 1896.
 Bulletin, vol. 8.
- AMERICAN NUMISMATIC AND ARCHEOLOGICAL SOCIETY, New York City.
 Proceedings, 1893-1896.

- AMERICAN PHILOSOPHICAL SOCIETY, Philadelphia, Pa.
Papers on the origin and chemical composition of petroleum.
Proceedings, current nos.
- AMERICAN SOCIETY OF NATURALISTS, Providence, R. I.
Records, vol. 1, pt. 7.
- AMHERST COLLEGE, Amherst, Mass.
Set of publications, 53 books and pams.
- ANDERSON INTELLIGENCER, Anderson, S. C.
Souvenir edition, 1896, (gift).
- ANDOVER THEOLOGICAL SEMINARY, Andover, Mass.
Catalogue, 1896-97.
- ANDREE, RICHARD, Braunschweig, Germany.
Globus, vols. 70-71.
- ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN & IRELAND,
London, England.
Journal, current nos.
- ARCTOWSKI, HENRYK, (the author), Brussels, Belgium.
La généalogie des sciences.
Materyaly do bibliografii prac naukowych Polskich, (gift).
- ARGENTINA. INSTITUTO GEOGRAFICO, Buenos Aires, Argentina.
Boletin, vol. 16, nos. 5-8, and vol. 17, nos. 10, 11 and 12.
- ARIZONA AGRICULTURAL EXPERIMENT STATION, Tucson, Ariz.
Bulletin, current nos. (gift).
- ASIATIC SOCIETY OF BENGAL, Calcutta, India.
Journal, current nos.
Proceedings, current nos.
- ATHENS. NATIONAL AND UNIVERSITY LIBRARY, Athens, Greece.
4 publications.
- ATKINSON, GEORGE, (the author), Ithaca, N. Y.
Bulletin of the Cornell University, vol. 3, no. 1.
Collection of 19 pams.
- AUCKLAND INSTITUTE AND MUSEUM, Auckland, New Zealand.
Report, 1896-97.
- AUSTRALIAN MUSEUM, Sidney, New South Wales.
Annual report, 1895.
List of insectivorous birds of New South Wales, by A. J. North.
Memoirs, vol. 3, pts. 1-3.
- BAILEY, S. C. H., (the author), Oscawana-on-Hudson, N. Y.
On the mineralogy of New York Island, with 3 other pams.
- BAKER, F. C., (the author), Chicago.
Critical notes on the muricidæ, with 4 other pams.
- BARTON, GEORGE H., (the author), Boston, Mass.
Glacial origin of channels on drumlins, with 1 other pam.
- BASCOM, F., (the author), Bryn Mawr, Pa.
Structure, origin and nomenclature of the acid volcanic rocks of South Mountain.
A pre-tertiary nepheline-bearing rock.
- BAUER, MAX, (the author), Marburg, Hesse, Germany.
Beiträge zur geologie der Seyschellen.
- BAUSCH & LOMB OPTICAL CO., Rochester, N. Y.
Catalogue, 15th ed. (2 copies), (gift).
- BECKER, GEORGE F., (the author), Washington, D. C.
Schistosity and slaty cleavage, with 2 other pams.
- BEECHER, C. E., (the author), New Haven, Conn.
Outline of a natural classification of the trilobites.
The morphology of triarthrus.

- BELL, ALEXANDER G., Washington, D. C.
Report concerning the Mystic Oral School.
- BELOIT COLLEGE, Beloit, Wis.
Catalogue, 49th and 50th, 1895-97.
- BENTON, FRANK, (the author), Washington, D. C.
The honey bee, (gift).
- BERLINER GESELLSCHAFT FÜR ANTHROPOLOGIE, Berlin, Germany.
Zeitschrift für ethnologie, vols. 28 and 29, current nos.
- BERLIN. K. BOTANISCHE GARTEN UND MUSEUM, Berlin, Germany.
Notizblatt, nos. 1-8.
- BERLIN. K. MUSEUM FÜR NATTRKUNDE, Berlin, Germany.
Bericht, 1896-97.
Neue orthopteren aus dem tropischen Afrika, with 17 pams.
- BERLIN. K. MUSEUM FÜR VÖLKERKUNDE, Berlin, Germany.
Ethnologisches notizblatt, heft 1.
- BERLIN. K. PREUSSISCHE AKAD. DER WISSENSCHAFTEN, Berlin, Germany.
Sitzungsberichte, 1895-96, 4 vols.
- BERLIN. VEREIN FÜR VOLKSKUNDE, Berlin, Germany.
Zeitschrift des Vereins für Volkskunde, current nos.
- BEYER, GEORGE, New Orleans, La.
Publications of the Louisiana Historical Society, vol. 1, pt. 4.
- BLACK DIAMOND COMPANY, Chicago.
Black diamond, current nos.
- BLUMER, J. G., Sierra Madra, Col.
An outline of the locomotive engine, by Th. West, (gift).
- BLYTT, AXEL, (the author), Christiania, Norway.
The probable cause of the displacement of beach-lines, with 11 other pams.
- BOMBAY PRESIDENCY. LAND RECORDS AND AGRICULTURE, Bombay, India.
Annual report, 1895-96.
Crop experiments, 1895-96.
Annual report of the Government Experimental Farm, Poona, 1896.
Reports on the rail and road borne trade, 1895-97.
- BONN. RHEINISCHE-FRIEDRICH-WILHELMS UNIVERSITÄT, Bonn, Germany.
Amtliches personal verzeichnis, 1894-96.
Chronik, 1893-96.
Index scholarum, 1894-96.
Verzeichniss der vorlesungen, 1894-96.
15 pamphlets.
- BOSTON MUSEUM OF FINE ARTS, Boston, Mass.
Annual report, 21st, 1896.
- BOSTON PUBLIC LIBRARY, Boston, Mass.
Annual report, 1895-96.
Monthly bulletin, current nos.
- BOSTON SOCIETY OF NATURAL HISTORY, Boston, Mass.
Proceedings, current nos.
- BOSTON TRANSIT COMMISSION, Boston, Mass.
Annual report, 2d, 1896.
- BOWKER, R. R., New York City.
Publications of Societies, July 1, 1890 to June 30, 1895.
- BRANNER, J. C., (the author), Palo Alto, Cal.
The bauxite deposits of Arkansas, with 6 other pams.
- BRIDGEPORT PUBLIC LIBRARY, Bridgeport, Conn.
Annual report, 16th.

- BRITISH COLUMBIA. BUREAU OF MINES, Victoria, B. C.
Annual report, 1896.
Bulletin, nos. 2 and 3.
- BRITISH COLUMBIA. BUREAU OF STATISTICS, Victoria, B. C.
Annual report of the New Westminster Board of Trade, 1896.
British Columbian mining record, Diamond jubilee number.
Insect pests and plant diseases.
Yucan gold fields, (gift).
- BROADWAY, W. E., Saint George, Grenada.
Annual report of the Botanical Garden, Grenada, 1895.
Bulletin, vol. 2, no. 3.
- BROOKLYN LIBRARY, Brooklyn, N. Y.
Annual report, 39th.
- BROWN UNIVERSITY, Providence, R. I.
Address book of the living graduates.
Annual report, 1896.
Catalogue, 1896.
- BROWNE, FRANCIS F., Chicago.
The Dial, current nos.
- BRÜHL, GUSTAV, (the author), Cincinnati, Ohio.
Zwischen Alaska und Feuerland.
Aztlan-Chicomotoc.
- BRUXELLES, EXPOSITION INTERNATIONALE, 1897, Brussels, Belgium.
La section des sciences, (gift).
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- STATEN ISLAND NATURAL SCIENCE ASSOCIATION, Staten Island, N. Y.
Proceedings, current nos.
- STATIONARY ENGINEER PUBLISHING CO., Chicago.
Stationary engineer, current nos. (gift).

- STEIERMARK NATURWISSENSCHAFTLICHER VEREIN, Graz, Steiermark.
Mittheilungen, 1896.
- STEJNEGER, LEONHARD, (the author), Washington, D. C.
Collection of 76 pams.
- STEVENSON, JOHN J., (the author), New York City.
Notes on the geology of West Virginia, with 34 other pams.
- STEWART, J. F., Chicago.
A brief narrative of the invention of reaping machines, (gift).
- STOCKHOLM. KONGLIGA BIBLIOTEK, Stockholm, Sweden.
Accessions—katalog, vols. 1-10, 1886-95.
- STONE, WITMER, (the author), Philadelphia, Pa.
The moulting of birds, with 18 other pams.
- STORRS AGRICULTURAL EXPERIMENT STATION, Storrs, Conn.
Annual report, 9th, 1896.
- STRASSBURG. K. UNIVERSITÄT-UND LANDES-BIBLIOTHEK,
Strassburg, Germany.
42 inaugural dissertations.
- STRETTON, CLEMENT E., Leicester, England.
The locomotive engine and its development, 5th ed., 1896, by the donor.
Working time-table, Midland Railway, 1897.
- SYDERE, ARTHUR H., Toronto, Ontario.
Collection of 55 reports of the various government departments of
Canada and Ontario.
- TAUNTON PUBLIC LIBRARY, Taunton, Mass.
Annual report, 31st, 1896.
- TELEGRAPHIC HISTORICAL SOCIETY OF NORTH AMERICA,
Washington, D. C.
History of the Society.
Circular, no. 1, (gift).
- TEPPER, J. G. O., (the author), Sydney, N. S. Wales.
The blattariæ of Australia and Polynesia, with 5 other pams.
- TEXAS AGRICULTURAL EXPERIMENT STATION, Austin, Texas.
Annual report, 9th, 1896.
Bulletin, current nos.
- THAXTER, ROLAND, (the author), Cambridge, Mass.
Contribution towards a monograph of the laboulbeniaceæ.
- THOULET, J., (the author), Nancy, France.
Sur le tassement des argiles au sein des eaux.
- TOKYO BOTANICAL SOCIETY, Tokyo, Japan.
Botanical magazine, current nos.
- TORINO. MUSEI DI ZOOL. ED ANAT. COMPARATA DELLA R.
UNIVERSITÀ, Torino, Italy.
Bollettino, vol. 11, 1896, and vol. 12, current nos.
- TORREY BOTANICAL CLUB, New York City.
Bulletin, current nos.
- TRING ZOOLOGICAL MUSEUM, Tring, England.
Novitates zoologicæ, vol. 4, nos. 1 and 2.
- TRINITY COLLEGE, Dublin, Ireland.
Hermathena, no. 23.
- TRUE, FREDERICK W., (the author), Washington, D. C.
A revision of the American moles.
- TÜBINGEN. KÖNIGLICHE UNIVERSITÄTS-BIBLIOTHEK, Tübingen,
Germany.
Tübinger universitäts schriften, 1895-96.
- TYLOR, E. B., (the author), Oxford, England.
On American lot-games, with 4 other pams.

UNION UNIVERSITY, Schenectady, N. Y.

Annual catalogue, 1896-97.

Centennial catalogue, 1795-1895.

U. S. AGRICULTURAL DEPARTMENT, Washington, D. C.

Annual report, 12th and 13th, of Bureau of Animal Industry.

Bibliography of meteorology, 4 vols.

Contributions from the U. S. National Herbarium, current nos.

Experiment station record, current nos.

Insect life, vol. 3, nos. 5, 9, and 10; vol. 4, nos. 3-8 and General index, 1888-95.

North American fauna nos. 10 and 12.

Report of the Secretary, 1896.

Yearbook, 1896.

Bulletins and circulars, current nos.

U. S. AMERICAN REPUBLICS BUREAU, Washington, D. C.

Annual report, 1896.

Bulletin, nos. 75 and 88.

Monthly bulletin, current nos.

U. S. COAST AND GEODETIC SURVEY, Washington, D. C.

Reports, 1852-96, 39 vols.

U. S. COMMISSION OF FISH AND FISHERIES, Washington, D. C.

Report, 1895.

Bulletin, vol. 16.

U. S. EDUCATION BUREAU, Washington, D. C.

Report, 1893-'95, 4 vols.

A. L. A. Library catalogue.

Notice sur L'Institution National des Sourd-Muets de Paris.

Preliminary list of American learned and educational societies (4 copies).

Proceedings of 5th summer meeting of American Association to Promote the Teaching of Speech to the Deaf.

Report on the deaf to State Board of Charities, New York.

Sanitary legislation affecting schools, etc.

U. S. ETHNOLOGY BUREAU, Washington, D. C.

Annual report, 14th and 15th, 3 vols.

List of publications of the Bureau.

U. S. FISH AND FISHERIES COMMISSION, Washington, D. C.

Reports 1893 and 94. (pts. 19 and 20).

U. S. GEOLOGICAL SURVEY, Washington, D. C.

Annual report, 11th, 12th, 16th, pt. 1, and 17th, pts. 1-3.

Bulletin, 87, 127, 130 and 135-148.

Geological atlas: Chester to San Mateo sheets.

Mineral products of the U. S., 1887-96.

Monograph, vols. 15, 16, 17 and 18, with atlas.

The production of precious stones in 1895, by George F. Kunz.

U. S. GOVERNMENT PRINTING OFFICE, Washington, D. C.

Annual report of the Smithsonian Institution, 1867 and 1877.

Catalogue of public documents, 53d Congress.

Fisheries and fishery industries of the U. S., by G. B. Goode, 4 vols.

Index catalogue of Surgeon-General's Office, vols. 1, 2, 3 and 10.

Narrative of the North Polar Expedition, U. S. ship Polaris.

Proceedings of the "Proteus" Court of Inquiry, 1883.

Reports of the Coast and Geodetic Survey, 6 vols.

Report of the Greeley Expedition, vol. 2.

Report of the U. S. Fish and Fisheries Commission, 1879-81 and 1884-87.

U. S. INTERIOR DEPARTMENT, Washington, D. C.

Annual report of the Commissioner of Patents, 1895.

Report of the 11th Census, 4 vols.

Report of the U. S. Geological Survey of the Territories, vol. 13

U. S. STATE DEPARTMENT, Washington, D. C.

Commercial relations of the U. S. with foreign countries, 1895-96.

Review of the world's commerce, 1895-96.

- U. S. STATE DEPARTMENT, Washington, D. C.
Proceedings of the Fur Seal Arbitration Tribunal, 16 vols. (gift).
- UNDERWOOD, L. M., New York City.
A preliminary list of Alabama fungi, by L. M. Underwood and F. S. Earle.
- UPSALA. KONGLIGA UNIVERSITETS BIBLIOTHEK, Upsala, Sweden.
Bidrag till kännedomen om Sveriges ichthyobdellider.
Bulletin of the Geological Institution, vol. 2, pt. 2, no. 4.
Festskrift Wilhelm Liljeborg af Svenska zoologer.
3 pamphlets.
- UTAH AGRICULTURAL EXPERIMENT STATION, Logan, Utah.
Bulletin, current nos. (gift).
- VALENTINI, PHILIP, (the author), New York City.
The pictorial text inscribed on 2 Palenque tablets.
- VAN HISE, CHARLES RICHARD, (the author), Madison, Wis.
Principles of North American pre-cambrian geology.
The pre-cambrian rocks of North-America.
The pre-cambrian geology of the Lake Superior region.
9 pamphlets.
- VASSAR BROTHERS INSTITUTE, Poughkeepsie, N. Y.
Transactions, 1894-96.
- VERMONT AGRICULTURAL EXPERIMENT STATION, Montpelier, Vt.
Annual report, 9th.
Bulletin, current nos. (gift).
- VERMONT UNIVERSITY, Burlington, Vt.
Catalogue, 1896-97.
- VICTORIA. PUBLIC LIBRARY, MUSEUM AND NATIONAL GALLERY, Melbourne.
Select extra—tropical plants, by F. Von Mueller.
Systematic arrangement of Australian fungi, by D. McAlpine.
- VICTORIA. ZOOLOGICAL AND ACCLIMATISATION SOCIETY, Melbourne.
Annual report, 27th-33d, 1890-96.
Proceedings, vols. 1, 2, and 4.
1 pamphlet.
- VIGNOLI, TITO, (the author), Milano, Italy.
Esplicazione progressiva della scienza sperimentale, with another pam. (gift).
- VIRGINIA AGRICULTURAL EXPERIMENT STATION, Blacksburg, Va.
Bulletin, current nos.
- VIRGINIA UNIVERSITY, Charlottesville, Pa.
Annals of mathematics, vol. 11, no. 5,
Catalogue, 1896-97.
Publications of the Leander McCormick observatory, vol. 1, no. 7.
- VOLTA BUREAU, Washington, D. C.
Circular of information, nos. 1-3.
Histories of American schools for the deaf, 3 vols.
List of publications.
- WABASH COLLEGE, Crawfordsville, Ind.
Catalogue, 1897-98.
- WADSWORTH, M. E., (the author), Houghton, Mich.
The elective system in technological schools.
The elective system in engineering colleges.
- WASHINGTON ANTHROPOLOGICAL SOCIETY, Washington, D. C.
American anthropologist, vol. 8, no. 4; vol. 9, no. 2; and current nos.
- WASHINGTON BIOLOGICAL SOCIETY, Washington, D. C.
Proceedings, current nos.
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Bulletin, vols. 1-12.

- WASHINGTON UNIVERSITY, St. Louis, Mo.
Catalogue, 1895-97.
- WELLESLEY COLLEGE, Boston, Mass.
Calendar, 1896-97.
- WELLINGTON ACCLIMATIZATION SOCIETY, Wellington, New Zealand.
Annual report, 10th, 11th and 12th.
- WESLEYAN UNIVERSITY, Middletown, Conn.
Annual catalogue, 1896-97.
- WEST AUSTRALIA. DEPARTMENT OF MINES, Perth, West Australia.
Gold mining statistics, 1896.
- WEST AUSTRALIA. FORESTRY DEPARTMENT, Perth, West Australia.
Report on the forests of Western Australia, 1896.
- WEST VIRGINIA AGRICULTURAL EXPERIMENT STATION, Morgantown, W. Va.
Annual report, 9th.
- WIEN. K. K. NATURHISTORISCHE HOFMUSEUM.
Annalen, vol. 7., vol. 8, no. 1, and current nos.
- WIEN. K. K. UNIVERSITÄT, Vienna, Austria.
Inaugurationsbericht, 1890-96.
Jahrbuch, 1890-94.
Öffentliche vorlesungen, 1891-97.
Programme der volksthümlichen universitätscurse.
6 pamphlets.
- WIEN. K. K. UNIVERSITÄT, NATURWISSENSCHAFTLICHER VEREIN, Vienna, Australia.
Mittheilungen, 1896.
- WILLE, N., (the author), Christiania, Norway.
Om podnings bastarder, with 8 other pams.
- WILLIAMS, HENRY S., (the author), New Haven, Conn.
Synopsis of a course of lectures on the elements of historical paleontology.
11 pamphlets.
- WILLIAMS COLLEGE, Williamstown, Mass.
Catalogue, 1896-97.
Report, 1896.
- WILLISTON, S. W., (the author), Lawrence, Kansas.
On the extremities of tylosaurus, with another pam.
- WINDSOR AND KENFIELD PUBLISHING CO., Chicago.
Brick, current nos.
Street railway review, current nos. (gift).
- WINNER, WILLARD E., Kansas City, Mo.
Map of the business portion of Chicago, (gift).
- WISCONSIN AGRICULTURAL EXPERIMENT STATION, Madison, Wis.
Bulletin, current nos.
- WISCONSIN NATURAL HISTORY SOCIETY, Milwaukee, Wis.
Occasional papers, vol. 2, nos. 1 and 2.
Proceedings, 1885-89.
- WISCONSIN STATE HISTORICAL SOCIETY, Madison, Wis.
Proceedings, 1896.
- WISCONSIN UNIVERSITY, Madison, Wis.
Bulletin, current nos.
- WOLF, J. E., (the author), Cambridge, Mass.
Report on archean geology, with 9 other pams.
- WORCESTER COUNTY HORTICULTURAL SOCIETY, Worcester, Mass.
Transactions, 1890-97, pt. 1.
- WORCESTER FREE PUBLIC LIBRARY, Worcester, Mass.
Additions, current nos.
Annual report, 37th, 1895-96.

- WYOMING AGRICULTURAL EXPERIMENT STATION, Cheyenne, Wyo.
Bulletin, current nos. (gift).
- WYOMING HISTORICAL AND GEOLOGICAL SOCIETY, Wilkes-Barre, Pa.
Proceedings and collections, vol. 2.
The massacre of Wyoming.
The frontier forts, 2 pams.
The Palatine or German immigration to New York and Pa.
- WYOMING UNIVERSITY, Laramie, Wyo.
Catalogue, 1896-97.
- YALE UNIVERSITY, New Haven, Conn.
Catalogue, 1896-97.
Report of the President, 1896.
- YATES, LORENZO G., Santa Barbara, Cal.
Bulletin, no. 4, of the California State Mining Bureau.
Bulletin, vol. 1, no. 2, of Santa Barbara Society of Natural History.
Mollusks of Santa Barbara, with 2 other pams., by the donor.
18 loose plates.
- ZAVALETA, MANUEL, Buenos Ayres, Argentina.
Boletín del Instituto Geográfico Argentino, vol. 17, nos. 4-6.
Les populations primitives de la République Argentine, by F. Landrin.
Memoria presentada al Congreso Nacional de 1885 por el Ministro de Justicia, (gift).



HIGINBOTHAM HALL—FIELD COLUMBIAN MUSEUM.

(Gems and Jewels.)

ARTICLES OF INCORPORATION.

STATE OF ILLINOIS.

DEPARTMENT OF STATE.

WILLIAM H. HINRICHSSEN, *Secretary of State*:

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

Whereas, a Certificate duly signed and acknowledged having been filed in the office of the Secretary of State, on the 16th day of September, A. D. 1893, for the organization of the COLUMBIAN MUSEUM OF CHICAGO, under and in accordance with the provisions of "An Act Concerning Corporations," approved April 18, 1872, and in force July 1, 1872, and all acts amendatory thereof, a copy of which certificate is hereto attached.

Now, therefore, I, William H. Hinrichsen, Secretary of State of the State of Illinois, by virtue of the powers and duties vested in me by law, do hereby certify that the said COLUMBIAN MUSEUM OF CHICAGO, is a legally organized Corporation under the laws of this State.

In Testimony Whereof, I hereto set my hand and cause to be affixed the great Seal of State. Done at the City of Springfield, this 16th day of September, in the year of our Lord one thousand eight hundred and ninety-three, and of the Independence of the United States the one hundred and eighteenth.

W. H. HINRICHSSEN,
Secretary of State.

TO HON. WILLIAM H. HINRICHSSEN,

SECRETARY OF STATE:

SIR:

We, the undersigned Citizens of the United States, propose to form a corporation under an act of the General Assembly of the State of Illinois, entitled, "An Act Concerning Corporations" approved April 18, 1872, and all acts amendatory thereof; and that for the purposes of such organization we hereby state as follows, to wit:

1. The name of such corporation is the "COLUMBIAN MUSEUM OF CHICAGO."

2. The object for which it is formed is for the accumulation and dissemination of knowledge, and the preservation and exhibition of objects illustrating Art, Archeology, Science, and History.

3. The management of the aforesaid museum shall be vested in a Board of FIFTEEN (15) TRUSTEES, five of whom are to be elected every year.

4. The following named persons are hereby selected as the Trustees for the first year of its corporate existence:

Ed. E. Ayer, Charles B. Farwell, George E. Adams, George R. Davis, Charles L. Hutchinson, Daniel H. Burnham, John A. Roche, M. C. Bullock, Emil G. Hirsch, James W. Ellsworth. Allison V. Armour, O. F. Aldis, Edwin Walker, John C. Black and Frank W. Gunsaulus.

5. The location of the Museum is in the City of Chicago, County of Cook, and State of Illinois.

(Signed)

George E. Adams, C. B. Farwell, Sidney C. Eastman, F. W. Putnam, Robert McMurdy, Andrew Peterson, L. J. Gage, Charles L. Hutchinson, Ebenezer Buckingham, Andrew McNally, Edward E. Ayer, John M. Clark, Herman H. Kohlsaas, George Schneider, Henry H. Getty, William R. Harper, Franklin H. Head, E. G. Keith, J. Irving Pearce, Azel F. Hatch, Henry Wade Rogers, Thomas B. Bryan, L. Z. Leiter, A. C. Bartlett, A. A. Sprague, A. C. McClurg, James W. Scott, Geo. F. Bissell, John R. Walsh, Chas. Fitzsimons, John A. Roche, E. B. McCagg, Owen F. Aldis, Ferdinand W. Peck, James H. Dole, Joseph Stockton, Edward B. Butler, John McConnell, R. A. Waller, H. C. Chatfield-Taylor, A. Crawford, Wm. Sooy Smith, P. S. Peterson, John C. Black, Jno. J. Mitchell, C. F. Gunther, Geo. R. Davis, Stephen A. Forbes, Robert W. Patterson, Jr., M. C. Bullock, Edwin Walker, Geo. M. Pullman, William E. Curtis, James W. Ellsworth, William E. Hale, Wm. T. Baker, Martin A. Ryerson, Huntington W. Jackson, N. B. Ream, Norman Williams, Melville E. Stone, Bryan Lathrop, Eliphalet W. Blatchford, Philip D. Armour.

STATE OF ILLINOIS, }
COOK COUNTY. } ss.

I, G. R. MITCHELL, a NOTARY PUBLIC in and for said County, do hereby certify that the foregoing petitioners personally appeared before me and acknowledged severally that they signed the foregoing petition as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 14th day of September, 1893.

G. R. MITCHELL,

(Seal)

NOTARY PUBLIC, COOK COUNTY, ILL.

CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the corporate members held the 25th day of June, 1894, the name of the COLUMBIAN MUSEUM was changed to FIELD COLUMBIAN MUSEUM. A certificate to this effect was filed June 26, 1894, in the office of the Secretary of State for Illinois.

AMENDED BY-LAWS.

ARTICLE I.

MEMBERS.

SECTION 1. Members shall be of five classes, Annual Members, Corporate Members, Life Members, Patrons and Honorary Members.

SEC. 2. Annual Members shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of ten dollars (\$10.00), payable within thirty days after notice of election, and within thirty days after each recurring annual date. The failure of any person to make such initiatory payment and such annual payments within said time shall, at the option of the Board of Trustees, be ground of forfeiture of annual membership.

This said annual membership shall entitle the member to:

First.—Free admittance for himself and family to the Museum on any day.

Second.—Ten tickets every year admitting the bearer to the Museum on pay days.

Third.—A copy of every publication of the Museum sold at the entrance door, and to the annual reports.

Fourth.—Invitations to all receptions, lectures or other entertainments which may be given at the Museum.

SEC. 3. The corporate members shall consist of the persons named in the articles of association, and of such other persons as shall be chosen from time to time by the Board of Trustees at any of its meetings, upon the recommendation of the Executive Committee; provided, that such persons named in the articles of association shall, within ninety days from the adoption of these By-Laws, and persons hereafter chosen as corporate members, shall, within ninety days of their respective election, pay into the treasury the sum of twenty dollars (\$20.00) or more. The failure of any person to make such payments within said time shall, at the option of the Board of Trustees, be ground for forfeiture of his corporate membership. The annual dues of corporate members shall be five dollars (\$5.00) after the first year of membership, and no one shall exercise the rights of a corporate member until his dues are paid; and a delinquency of six months in the payment of annual dues shall be ground for forfeiture of corporate membership.

SEC. 4, ART. 1. Any person paying into the treasury the sum of five hundred dollars at any one time, shall upon the unanimous vote of the trustees, become a life member. Life members shall be exempt from all dues.

SEC. 4, ART. 2. The respective members of the Board of Trustees now in office, and those who shall hereafter be elected, shall hold office during life. Vacancies occurring in the Board shall be filled by a majority vote of the remaining members of the Board of Trustees at any regular meeting.

SEC. 5. Patrons shall be chosen by the Board of Trustees upon recommendation of the Executive Committee from among persons who have rendered eminent service to the Museum. They shall be exempt from all dues, and by virtue of their election as patrons shall also be corporate members.

SEC. 6. Honorary members shall be chosen from among persons who have rendered eminent service to science, art or mechanics. They shall be chosen by

a vote of the Trustees, and only upon unanimous nomination of the Executive Committee. They shall be exempt from all dues. In commemoration of the 14th day of October honorary members shall not be more than fourteen in number at any one time.

SEC. 7. All members of whatever class shall be eligible to appointment upon committees other than the Executive Committee.

ARTICLE II.

OFFICERS.

SECTION 1. The respective members of the Board of Trustees now in office, and those who shall hereafter be elected, shall hold office during life. Vacancies occurring in the Board shall be filled by a majority vote of the remaining members of the Board of Trustees at any regular meeting.

SEC. 2. The other officers shall be President, two Vice-Presidents, Secretary and Treasurer, and an Executive Committee of four persons, who shall be chosen by ballot by the Board of Trustees from their own number as early as practicable after the annual meeting in each year. The President shall be *ex-officio* a member of the Executive Committee, in addition to the other four members. The Secretary and Treasurer may, or may not, be the same person, and the Secretary may, or may not, be a corporate member.

Any officer may be removed at any regular meeting of the Board of Trustees by a vote of two-thirds of all the members of the Board. Vacancies in any office may be filled by the Board at any meeting.

SEC. 3. The President shall appoint from among the Trustees a Committee on Finance, a Committee on Property, an Auditing Committee, and a Committee on Buildings and Grounds, who shall serve during the pleasure of the Board.

SEC. 4. The officers shall perform such duties as ordinarily appertain to their respective offices, and such other duties as the Board of Trustees may from time to time devolve upon them. The Treasurer shall give bond in such amount and with such surety as shall be approved by the Executive Committee, and shall disburse the funds of the Museum only in accordance with the directions of the Executive Committee, upon the signature and counter-signature of such officers as the Executive Committee shall empower thereto.

SEC. 5. The Executive Committee shall have full control of the affairs of the Museum, under the general supervision of the Board of Trustees.

ARTICLE III.

MEETINGS.

SECTION 1. In commemoration of the discovery of America by Christopher Columbus, the annual meeting of the corporate members shall be held on the 14th day of October in each year, except when that day falls on a Sunday, and then upon the Monday following. At such meetings the corporate members shall transact such business as may properly come before the meeting. Special meetings of the corporate members shall be called at any time by the Secretary upon

the glass, and serves to light the interior of the case. The slabs also favors reflection of the light from their surfaces rather than from the four-sided pyramid, all parts of which are equally lighted. The inclination of the slabs above. When the case is filled the specimens form a mens rest at the bottom in a groove in the shelf and at the top against a flange to allow each shelf to project two inches beyond the one above it. The specimens are provided with jacks, adjustable brackets. The brackets are of such length as uprights in the center of the case furnish support for the shelves. These are inches long and 8 feet 7 inches high, with base 2 feet 2 inches high. Four brackets also provide adjustable shelving. They are 3 feet 7 inches wide, 9 feet 9 amount of light from overhead lighting, with a minimum amount of frame-work. These cases have been designed with the view of obtaining the maximum

DETAIL OF FLOOR CASES USED FOR EXHIBITING MARBLES AND ORNAMENTAL STONES

lengths and elevations. The greatest weight on heaviest roof cross bar. Shelves may be of different widths. Castings all in brass. Interference of thin piece of linoleum at center brings The supports are $\frac{1}{8}$ inch and cross bars $\frac{3}{8}$ inch gas pipe, finished as desired.

DETAILS OF ADJUSTABLE SWINGING SHELF.

Glass shelves; ebony case. Supports and cross bars are of the same size. Castings and bars are oxidized.

PL XII. DETAILS OF ADJUSTABLE SHELVES ON FIXED UPRIGHTS.

PL. XII. DETAILS OF ADJUSTABLE SHELVES ON FIXED UPRIGHTS.

Supports and cross bars are of the same size. Castings and bars are oxidized. Glass shelves; ebony case.

DETAILS OF ADJUSTABLE SWINGING SHELF.

The supports are $\frac{1}{8}$ inch and cross bars $\frac{3}{8}$ inch gas pipe, finished as desired. Castings all in brass. Interference of thin piece of linoleum at center brings greatest weight on heaviest roof cross bar. Shelves may be of different widths, lengths and elevations.

DETAIL OF FLOOR CASES USED FOR EXHIBITING MARBLES AND ORNAMENTAL STONES.

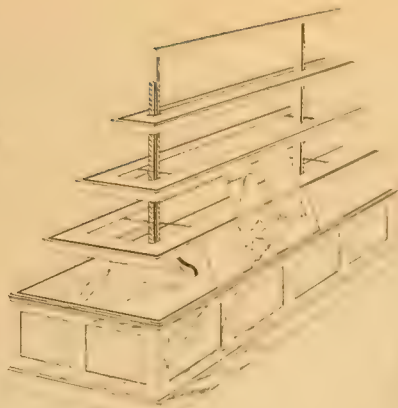
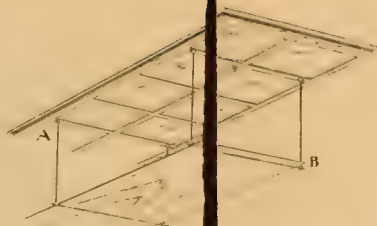
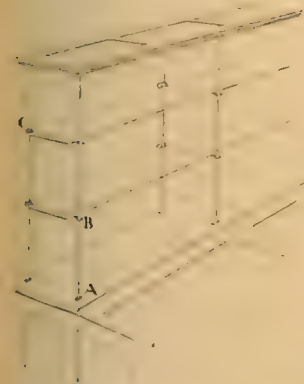
These cases have been designed with the view of obtaining the maximum amount of light from overhead lighting, with a minimum amount of frame-work. They also provide adjustable shelving. They are 3 feet 7 inches wide, 9 feet 9 inches long and 8 feet 7 inches high, with base 2 feet 2 inches high. Four braced uprights in the center of the case furnish support for the shelves. These are provided with Jencks' adjustable brackets. The brackets are of such length as to allow each shelf to project two inches beyond the one above it. The specimens rest at the bottom in a groove in the shelf and at the top against a flange dropped from the shelf above. When the case is filled the specimens form a four-sided pyramid, all parts of which are equally lighted. The inclination of the slabs also favors reflection of the light from their surfaces rather than from the glass, and serves to light the interior of the case.



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FIELD COLUMBIAN MUSEUM.



DETAILS OF CASE FURNITURE—FIELD COLUMBIAN MUSEUM

written request of twenty corporate members. In such case thirty days notice by mail shall be given to corporate members of the time, place and purpose of such meetings.

SEC. 2. Regular meetings of the Board of Trustees shall be held upon the 14th day of October, except when that day falls on a Sunday, and then upon the Monday following, and upon the last Monday of January, April and July of each year. Special meetings may be called by the President at any time upon reasonable notice by mail, and shall be called upon the written request of three Trustees. Five Trustees shall constitute a quorum.

ARTICLE IV.

AMENDMENTS.

SECTION 1. These By-Laws may be amended at any regular meeting of the Trustees by a 'two-thirds' vote of all the members present, provided the amendment shall have been proposed at the last regular meeting preceding, or shall be recommended by the Executive Committee.

HONORARY MEMBERS.

CHARLES B. CORY.

MARY D. STURGES.

EDWARD E. AYER.

HARLOW N. HIGINBOTHAM.

GEORGE M. PULLMAN.

PATRONS.

ALLISON V. ARMOUR.

FREDERICK J. V. SKIFF.

WILLARD A. SMITH.

WILLIAM I. BUCHANAN.

CORPORATE MEMBERS.

GEORGE E. ADAMS
OWEN F. ALDIS
ALLISON V. ARMOUR
PHILIP D. ARMOUR
EDWARD E. AYER
WM. T. BAKER
A. C. BARTLETT
JOHN C. BLACK
WATSON F. BLAIR
ELIPHALET W. BLATCHFORD
THOS. B. BRYAN
W. I. BUCHANAN
EBENEZER BUCKINGHAM
DANIEL H. BURNHAM
EDWARD B. BUTLER
JOHN M. CLARK
W. J. CHALMERS
H. C. CHATFIELD-TAYLOR
ANDREW CRAWFORD
WM. E. CURTIS
GEORGE R. DAVIS
SIDNEY C. EASTMAN
JAMES W. ELLSWORTH
CHAS. FITZSIMONS
LYMAN J. GAGE
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GEORGE F. BISSELL

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Oxides of the Metals.

Sesquioxides.

231. CORUNDUM, Aluminum sesquioxide Al_2O_3 Rhombohedral.
Sapphire, " "
Ruby, " "
Emery, " "
232. HEMATITE, Iron sesquioxide, Fe_2O_3 Isometric,
Martite, " "
233. Ilmenite, Oxide of Iron and Titanium, $(Fe, Ti)_2O_3$ } Rhombohedral,
Menaccanite, " } tetartohedral.

Intermediate Oxides.

234. SPINEL, Magnesium aluminat, $MgO \cdot Al_2O_3$ Isometric.
Ceylonite, $(Mg, Fe)O \cdot Al_2O_3$ "
Chlorospinel, $MgO \cdot (Al, Fe)_2O_3$ "
Picotite, $(Mg, Fe)O \cdot (Al, Fe, Cr)_2O_3$ "

235. Hercynite, Iron aluminat, $FeO \cdot Al_2O_3$ "
236. Garnite, Zinc aluminat, $ZnO \cdot Al_2O_3$ Isometric.
Automolite, $(Zn, Fe, Mn)O \cdot (Al, Fe)_2O_3$ "
Dysluite, $(Zn, Fe, Mg)O \cdot (Al, Fe)_2O_3$ "
Kreittonite, $Zn, Fe, Mg, O \cdot (Al, Fe)_2O_3$ "
237. MAGNETITE, Iron ferrate $FeO \cdot Fe_2O_3$ "
238. Magnesioferrite, Magnesium ferrate, $MgO \cdot Fe_2O_3$ "
239. FRANKLINITE, Iron, Zinc and Manganese ferrate and manganate, $(Fe, Zn, Mn)O \cdot (Fe, Mn)_2O_3$ "
240. Jacobstite, Manganese and Magnesium ferrate and manganate, $Mn, Mg, O \cdot Fe, Mn_2O_3$ "
241. CHROMITE, Chromate of Iron, $FeO \cdot Cr_2O_3$ "
242. CHRYSOBERYL, Beryllium aluminat, $BeO \cdot Al_2O_3$ Orthorhombic.
243. Hausmannite, Manganese manganate, $MnO \cdot Mn_2O_3$ Tetragonal.
244. Minium, Lead plumbate, $2 PbO \cdot PbO_2$ "
245. Crednerite, Copper manganate, $3 CuO \cdot 2 Mn_2O_3$ Monoclinic
246. Pseudobrookite, Iron titanate, $2 Fe_2O_3 \cdot 3 TiO_2$ Orthorhombic
247. Braunitz, Manganese manganosilicate, $3 Mn_2O_3 \cdot MnSiO_3$ Tetragonal

Each label gives the group, Dana's number, name, chemical composition both in words and symbols, and system of crystallization of each species case. The relations of species are thus exhibited and too great crowding on the specimen label is avoided.

on the specimen label is avoided. The relations of species are thus exhibited and too great crowding of data both in words and symbols, and system of crystallization of each species in the Each label gives the group, Dana's number, name, chemical composition.

Pl. XIII. Case label used with Systematic Mineral Collection.

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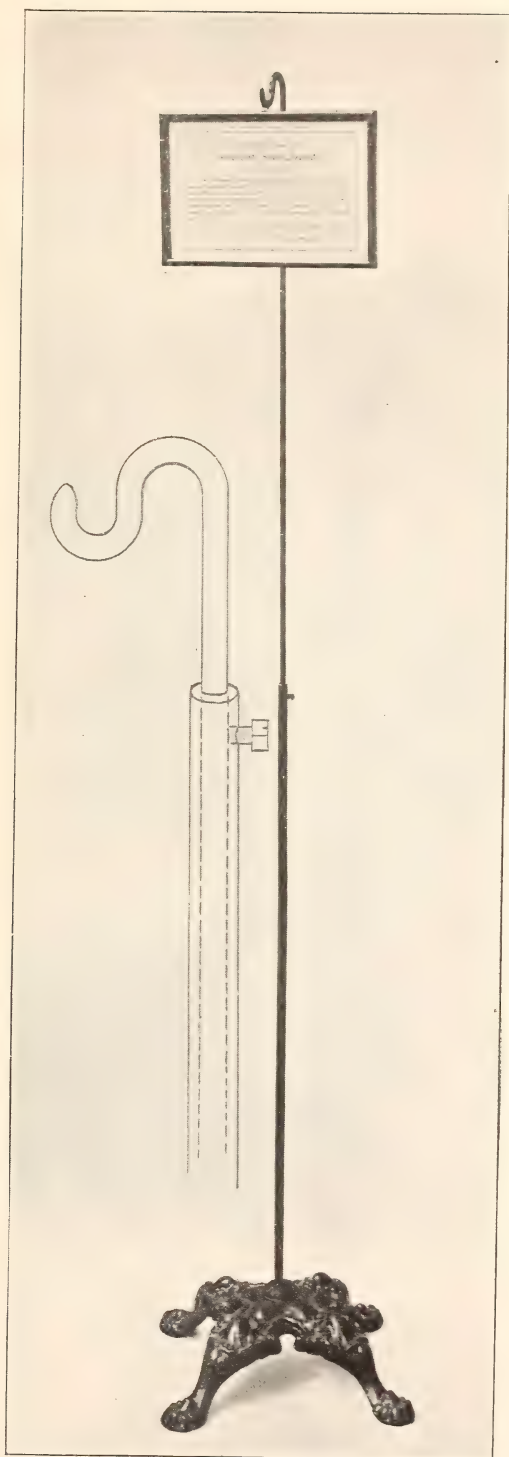
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PL. XIV. LABEL STAND USED IN DEPARTMENT OF GEOLOGY FOR MOUNTING LABELS OF
FLOOR SPECIMENS.

The stand is designed to provide a light and graceful support by which the
label can be brought to about the height of the eye and its reading be facilitated.
The method of adjustment is given in the detail cut at the left.

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LABEL AND STAND FOR FLOOR SPECIMEN—DEPARTMENT OF GEOLOGY.

FIELD COLUMBIAN MUSEUM

PUBLICATION 29.

REPORT SERIES.

VOL. I, No. 4.

ANNUAL REPORT OF THE DIRECTOR

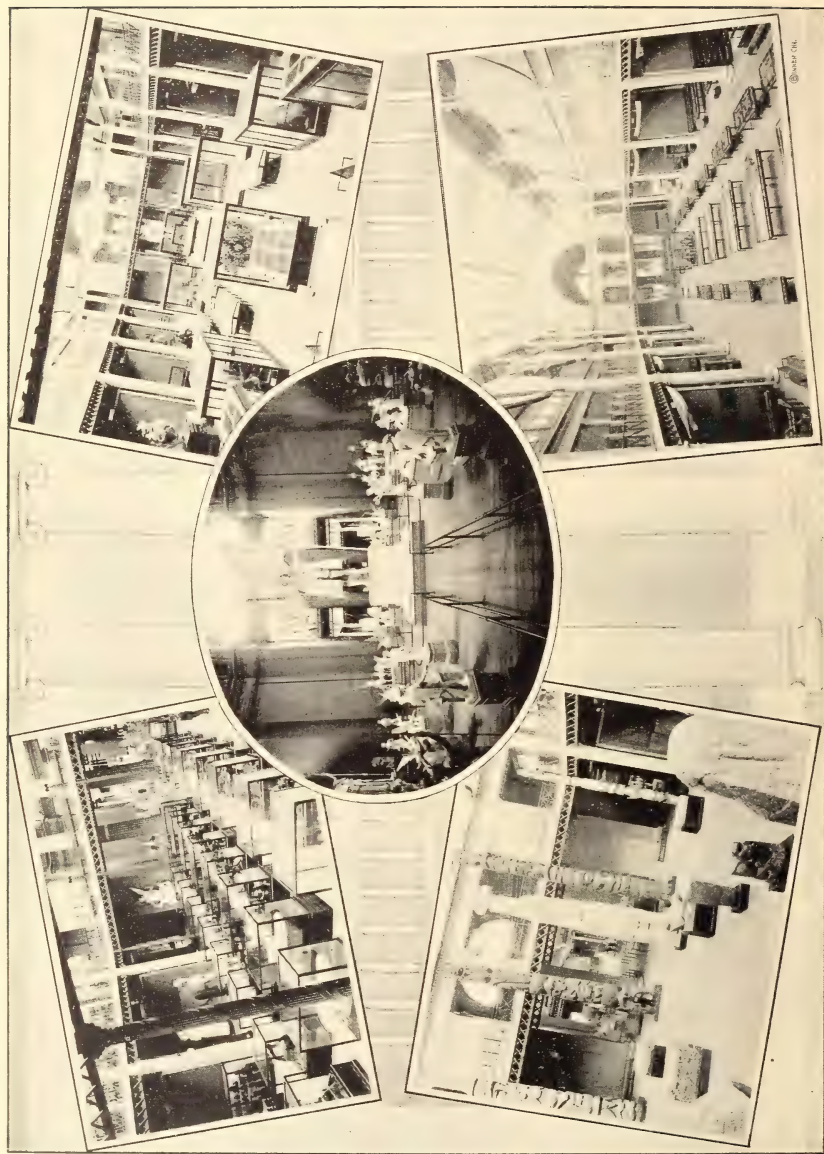
TO THE
BOARD OF TRUSTEES

FOR THE YEAR 1897-98.



CHICAGO, U. S. A.

October, 1898.



THE FIVE GREAT COURTS—FIELD COLUMBIAN MUSEUM.

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DEPARTMENT OF ANTHROPOLOGY.

G. A. DORSEY, *Curator*.

DEPARTMENT OF BOTANY.

C. F. MILLSPAUGH, *Curator*.

DEPARTMENT OF GEOLOGY.

O. C. FARRINGTON, *Curator*.

H. W. NICHOLS, *Assistant Curator*.

DEPARTMENT OF ZOOLOGY, EXCEPT ORNITHOLOGY.

D. G. ELLIOT, *Curator*.

S. E. MEEK, *Assistant Curator*.

DEPARTMENT OF ORNITHOLOGY.

C. B. CORY, *Curator*.

THE LIBRARY.

J. DIESERUD, *Librarian*.

RECORDER.

D. C. DAVIES.

ANNUAL REPORT OF THE DIRECTOR.

1897-1898.

To the Trustees of the Field Columbian Museum :

I have the honor to present a report of the operations of the Museum for the year closing September 30, 1898. The same uniform, steady, and systematic work that was in progress at the time of the last report has been maintained during the past twelve months, marked by a spirit which seems to pervade the institution, always leading to a higher standard of strictly scientific treatment and an increasing regard for popular demand. The routine of the Museum has been excellent, and the general method of operation confirms the wisdom of the original plans. It will be observed, as details are presented, that the claims of each department and of each feature of the scope of the Museum, as well as the requirements of the institution as a whole, have had consideration and have received a proper share of attention. The concert of action on the part of the staff during the past year has been especially gratifying in an individual sense, and of course productive of much benefit collectively. Without in the least abating an interest in original research and in special work in the laboratories, a broader policy has marked each department in the treatment of those principles of Museum work that appeal to the public and concern the great mass of people to whose betterment and uplifting institutions of this character are dedicated. With the exception that in nearly all departments and sections the working force has been strengthened as the necessities of each case seemed to require, there have been no changes in the personnel of the staff. It is fair to assume, therefore, that its members enter upon the new year with increased capacity to meet the growing requirements of their respective stations, and with added interest in and devotion to the work assigned to each.

INCOME AND MAINTENANCE.—The annual budget, approved by the Executive Committee, provided the sum of \$102,000 for the maintenance of the Museum for the fiscal year. The actual amount expended was \$88,020, leaving a balance within the anticipated expenses for the year, of \$13,980. In addition to the cost of maintenance, sums were

expended for collections and for new installations, expeditions, etc., that brought the total to \$111,940, the deficit being met by individual contributions and by the sale of certain securities. An analysis of the itemized financial statements appearing elsewhere in this report, will convey the suggestion that a large proportion of the deficit, including expenditure for new material, is accounted for in the cost of guards, protection from fire, and repairs to the building. That the total outlay, however, so nearly approaches the income from all sources under the constant pressure for funds that the growth and development of the institution creates, and the proper protection that the building requires is, it would seem, rather satisfactory than otherwise. The books of the Museum have been compared with the Treasurer's statements, and a certificate of agreement issued.

THE MEMBERSHIPS.—The annual memberships have decreased during the year, owing to the fact that life memberships were taken by a number of persons who were previously annual members. In accordance with the instructions of the Executive Committee, no effort was made to increase the annual membership, and the list now of record comprises those who have voluntarily renewed their annual subscriptions. The attendance of annual members has been considerably larger than in any previous year.

LECTURE COURSES.—The spring and autumn lecture courses, comprising Course Number Eight in October and November, 1897, nine lectures, and Course Number Nine in March and April, 1898, nine lectures, were attended more largely than had been the case theretofore. In fact, with one or two exceptions, the capacity of the lecture hall has been inadequate to the demands for admission, several hundred people being ordinarily unable to gain admission, and the number of those disappointed, in one case at least, approximating one thousand. With one exception, the eighteen lectures under consideration were illustrated, and the lecturers, except in five instances, were members of the staff of the Museum. A perusal of the subjects presented will give an idea of the range and variety of the topics and will account for the interest manifested by the public in their delivery. Following is the Eighth Course, delivered in October and November, 1897, with subjects and lecturers :

Oct. 2.—The East African Expedition—"London to South of Toyo Plain."

D. G. Elliot, Curator Department of Zoology.

Oct. 9.—The East African Expedition — “Toyo to Ogaden and Berbera.”

Dr. G. Elliot, Curator Department of Zoology.

Oct. 16.—“How Plants Travel.”

Dr. C. F. Millspaugh, Curator Department of Botany.

Oct. 23.—“Gold Placer Mining.”

Mr. Henry W. Nichols, Assistant Curator Department of Geology.

Oct. 30.—“The Beetles of Chicago and Vicinity.”

Mr. Edward B. Chope, Assistant in Department of Zoology.

Nov. 6.—“A Visit to Queen Charlotte Islands.”

Dr. G. A. Dorsey, Assistant Curator Department of Anthropology.

Nov. 13.—“The Home of the Tsimshians.”

Dr. G. A. Dorsey, Assistant Curator Department of Anthropology.

Nov. 20.—“The Salmon of the Pacific Coast.”

Dr. S. E. Meek, Assistant Curator Department of Zoology.

Nov. 27.—“Mammoth Cave.”

Prof. O. C. Farrington, Curator Department of Geology.

The following is the Ninth Course, delivered in March and April, 1898, with subjects and lecturers:

March 5.—“Mammoth Cave.” (Repeated by request.)

Prof. O. C. Farrington, Curator Department of Geology.

March 12.—“The Everglades of Florida.”

Dr. David T. Day, U. S. Geological Survey.

March 19.—“Oraibi—A Primitive Tusayan Pueblo.”

Dr. George A. Dorsey, Acting Curator Department of Anthropology.

March 26.—“Warning Colors and Mimicry in Animals.”

Prof. W. H. Dudley, Wisconsin State Normal School.

April 2.—“Zinc Mining and Smelting.”

Mr. H. W. Nichols, Assistant Curator Department of Geology.

April 9.—“Zoology—A Glance at the Leading Types of the Animal Kingdom.”

Prof. Frank Collins Baker, Curator of the Chicago Academy of Sciences.

April 16.—“A Tour of the Plant World.” (North America.)

Dr. C. F. Millspaugh, Curator Department of Botany.

April 23.—“The Archeology of Peru.”

Dr. George A. Dorsey, Acting Curator Department of Anthropology.

April 30.—“Historical Development of the Steam Engine.”

Prof. C. V. Kerr, Armour Institute of Technology.

There are now on hand 1,466 slides, classified by lectures as follows:

Department.	Total Number of Slides.	Number of Illustrated Lectures.
Anthropology,	262 slides	12
Botany,	315 “	8
Geology,	455 “	13
Zoology,	327 “	14
General,	107 “	3
Total,	1,466 slides	

In addition to their assignments on the regular lecture course of the Museum, the curators of the institution entered cordially into the *Chicago Record* course of lectures delivered at different public schools within the city, contributing very largely, as has been generously acknowledged, to the success of that undertaking.

PUBLICATIONS.—The publications of the Museum during the year have appeared from time to time as the opportunity for study, research, and observation presented itself and the importance of the subject matter dictated. The following list is presented, giving the titles of issues since the date of the last report, with the number of pages and illustrations:

Pub. 22.—Zool. Ser., Vol. 1, No. 8. “List of Fishes and Reptiles by Field Columbian Museum East African Expedition to Somali Land in 1896.” By S. E. Meek. 26 pages, edition 1,000, 2 illustrations (2 zinc etchings).

- Pub. 23.—Anthropol. Ser., Vol. 2, No. 2. "A Bibliography of the Anthropology of Peru." By Dr. George A. Dorsey. 150 pages, edition 1,000, no illustrations.
- Pub. 24.—Report Ser., Vol. 1, No. 3. "Annual Report of the Director." 92 pages, edition 2,000, 18 illustrations (14 half-tones and 4 zinc etchings).
- Pub. 25.—Bot. Ser., Vol. 1, No. 4. "Contribution III to the Coastal and Plain Flora of Yucatan." By C. F. Millspaugh. 66 pages, edition 1,000, no illustrations.
- Pub. 26.—Zool. Ser., Vol. 1, No. 9. "List of a Collection of Shells from the Gulf of Aden, obtained by the Museum's African Expedition." By Dr. W. H. Dall. 6 pages, edition 1,000, no illustrations.
- Pub. 27.—Zool. Ser., Vol. 1, No. 10. "Lists of Species of Mammals, principally Rodents, obtained by W. W. Price, Dr. S. E. Meek, G. K. Cherrie, and E. S. Thompson in the States of Iowa, Wyoming, Montana, Idaho, Nevada, and California, with Descriptions of New Species." By D. G. Elliot. 32 pages, edition 1,000, no illustrations.
- Pub. 28.—Anthropol. Ser., Vol. 2, No. 3. "Ruins of Xkickmook, Yucatan." By Edward H. Thompson. 22 pages, edition 1,000, 24 illustrations (3 zinc etchings, 7 drawings, and 14 half-tones).

The method of mailing these publications, of checking the acknowledgments, and of keeping the list correct as to changed and new addresses has been very satisfactory, and it is rare that complaints are received of improper direction or failure to receive the publications promptly. Such tardiness or neglect in acknowledging the receipt of these publications appeared to exist the first of the year that it was found necessary to send out a special circular letter reminding those to whom the publications had been sent of the importance of signing and returning the acknowledgments enclosed in the several publications. This not only enabled the institution to account for the distribution of publications, but was the indirect means of correcting

errors that had previously crept into the lists of addresses. The following table presents a record of the disposition of the publications of the institution by series:

OFFICIAL:

Trustees,	15
Staff,	11
Corporate Members,	3
Honorary Members,	3
Annual Members,	415

RECEIVED PUBLICATIONS IN ALL DEPARTMENTS:

	Domestic.	Foreign.
Individuals,	10	10
Universities, Schools, and Colleges,	59	35
Academies and Institutes,	29	17
Museums and Gardens,	6	35
Scientific Societies,	20	43
Libraries,	55	29
Government and State Departments,	8	2
Journals,	10	17

RECEIVED PUBLICATIONS IN ONE OR MORE DEPARTMENTS:

	DOMESTIC.							
	*A	B	G	H	I A	O	T	Z
Individuals,	81	56	96	..	..	12	1	31
Universities, Schools, and Colleges, . . . . .	..	28	6	..	2	1	1	8
Museums and Gardens,	9	8	6	..	..	..	..	6
Academies and Institutes,	3	1	2	1	1	..	2	1
Societies,	9	17	12	14	3	5	5	13
Libraries, . . . . .	..	2	1	19	..	..	..	1
Government and State Departments,	1	8	15	4	..	..	..	14
Journals,	13	8	6	..	..	2	2	4

	FOREIGN.							
	A	B	G	H	I A	O	T	Z
Individuals,	55	28	52	..	..	5	..	21
Universities, Schools, and Colleges, . . . . .	..	..	7	..	..	..	..	4
Academies and Institutes,	5	..	6	..	..	1	..	..
Museums and Gardens,	10	6	5	..	1	1	..	4
Scientific Societies,	6	7	12	..	..	3	1	17
Libraries,	1	..	..	..	..	..	..	..
Government and State Departments, . . . . .	..	5	11	..	..	..	..	..
Journals,	12	2	6	..	..	3	..	2

* A, B, G, H, I A, O, T and Z denote Anthropology, Botany, Geology, History, Industrial Arts, Ornithology, Transportation, and Zoology.

Acknowledgment is made of the continued obligation of the Museum for the facilities offered for the distribution of publications



AYER HALL—NORTH AMERICAN ETHNOLOGY (PLAINS INDIANS)—FIELD COLUMBIAN MUSEUM.

by the Bureau of International Exchanges connected with the Smithsonian Institution. The fifth edition of the Guide was issued during the year. It has become rather bulky and it will doubtless be necessary within at least the next two years to divide the Guide into departments for the greater convenience of the public. The cost of the Guide in its present form so nearly equals the price that should be charged for such a publication that it does not yield the profit which its sale should reasonably bring to the Museum. The Museum has also issued from its own press 500 copies of a small pamphlet, "Herbarium, Field Columbian Museum."

LIBRARY.—The library at present contains 9,003 books and 9,630 pamphlets, distributed as follows :

	Books.	Pamphlets.
General Library,	6,944	6,822
Department of Geology,	1,072	2,530
Department of Ornithology,	368	....
Department of Botany, including Division of Photography,	298	233
Department of Anthropology,	134	45
Department of Zoology,	187	....

The additions during the fiscal year were 941 books and 1,949 pamphlets and bulletins, making a total of 2,890 titles, as against 2,213 for the preceding year. Of these 283 books and 550 pamphlets were added by purchase, and 20 books and 9 pamphlets by exchange for duplicate material. The bulk of the purchased books and pamphlets was derived from the library of the late Mr. Bebb, and came with the collection of plants bought by the Museum. Unfortunately, 95 volumes and 173 pamphlets were duplicates of material already contained in the library. The additions by gift and exchange for Museum publications consequently amount to 2,028 books and pamphlets. The number of periodicals subscribed for is 47; the number received in exchange or as gift, 50, exclusive of the publications of societies, academies, etc. A complete list of the accessions to the library accompanies this report. Among the gifts, special mention is made of the receipt of the second part of the "Galerie Américaine du Musée d'Ethnographie du Trocadéro," by E. T. Hamy, presented by the Duc de Loubat. It is a magnificent representation on folio plates, with explanatory notes, of the American antiquities contained in the Museum. The same donor presented an interesting reproduction of the Mexican "Borgiaño" manuscript. The Royal Society of New South Wales sent

20 volumes of its journals and proceedings, and the British Museum 22 of its valuable publications. The work of cataloguing the resources of the library has progressed steadily. The shelf list and the author catalogue have been kept up to date. The subject catalogue has been completed so far as regards the books, pamphlets, and separates, some 8,500 cards having been written during the fiscal year. The staff are anxious to have subject cards for the more important papers in the scientific transactions, proceedings, and bulletins; this work has recently been started and can be pushed with vigor during the next year. 372 volumes have been bound during the past year, involving an expense of \$300.60. The Union list of periodicals referred to in the last report has not been published yet, owing to the many difficulties of the undertaking, but it is hoped that it will be available for reference some time this winter. Of the duplicate catalogue of the John Crerar Library some 12,500 cards have been received and arranged in alphabetical order by authors. This accurate and carefully prepared catalogue is likely to be very useful to the Museum staff in many ways, besides preventing the duplicating of expensive books, and will surely repay the not inconsiderable work involved in its handling. The permission secured from the Chicago Public Library to draw out books is constantly made use of. While the members of the staff in this way have an opportunity of availing themselves of many important books not contained in the Museum library, it is nevertheless true that many standard works are yet inaccessible to them, and a moderate amount expended once for all for such books would add much to their facilities.

RECORDS.—This most essential and basic feature of the routine work of the Museum is in the highest degree satisfactory, and the assurance is gratifying that the receipt, the distribution, and the forwarding for storage, for exchange, for identification, etc., is accurately, systematically, and intelligently recorded. Several improvements have been made in the manner of keeping the records during the year. Heretofore no distinction has been made between the Departments of Zoology and of Ornithology, notwithstanding a different curator presided over each department. This division of material has been made with much labor, and separate sets of records are now maintained for each department. No systematic record has been kept of negatives, lantern slides, and photographs. As very many negatives, etc., have been acquired or made by the Museum, it was deemed advisable to open an accession book under the head, "Section of Photography and Illustration," purchases

being accessioned as they are acquired, while lantern slides and negatives executed by the Museum are entered at the end of the year. The library accession cards had hitherto not been indexed, chiefly owing to the fact that the elaborate system of cataloguing in the library had been considered sufficient. For the sake of ready reference, however, an index has been made and is kept in the Recorder's office. The records of the Department of Anthropology were virtually rewritten from beginning to end, the endless changes in the jackets having created much confusion in the records. The Recorder has now on file a catalogue of nearly all the collections in that department, a very satisfactory state of affairs. An exchange record was also opened during the year, reference to which at any time will show the status of an exchange account. The commercial idea of a ledger was used in this case as being the best means of recording such transactions. An index to the book renders reference to it comparatively simple. The distribution card originally adopted has been changed. The chief idea influencing this change was the fact that a considerable number of specimens sent out for examination had, on their return, to be re-accessioned. This also applied to material sent for examination, and thus the records were burdened with a number of entries that were more or less fictitious. To obviate these inconveniences a memo card was provided, which, in cases like the above, is held until the transaction is complete. In case of material sent for examination and returned, no entry is made in any book except the Transportation record, and this with the card, which is numbered and indexed, is all that is required for prompt reference. The total number of specimens accessioned during the year was approximately 74,200, not including the specimens secured by the Dorsey expedition.

DEPARTMENTAL CATALOGUING, INVENTORYING, AND LABELS.—In no previous year has so much attention been given to this highly important but uninteresting and endless labor. Especially in the Departments of Anthropology and Zoology, and as it was demanded in the other departments as well, identification, numbering, and recording of historical data have been continued unremittingly. The results obtained form the most gratifying feature to which reference may be made in this report, and it is difficult to convey an adequate idea of the amount of hard work and unremitting attention required from both the heads of departments and their assistants in this task. The year's

work in the Museum on catalogues and inventories is shown in detail as follows:

	No. of Record Books.	Total No. of entries to Sept. 30, 1898.	Entries during 1897-98.	Total No. of Cards Written.
Anthropology,	24	27,149	17,960	41,089
Botany,	19	39,335	18,621	1,400
Geology,	10	18,575	3,616	.....
Library,	5	15,418	2,045	11,000 est.
Ornithology,	2	9,234	1,597	.....
Photography,	1	5,142	3,333	.....
Zoology	9	17,421	10,225	1,533

ACCESSIONS.—The year has been bountiful in the contribution of new material to the Museum. Accessions, by gift, by expedition, by exchange, and by purchase, have been generous, and, unlike other years, have been largely directed with reference to the actual needs of the different departments in completing series, suites, classification, and special plans. The accessions to the institution are classified as follows:

Source.	No. of Accessions.	No of Specimens.
Gifts,	155	6,544
Loans,	4	236
Exchange,	25	4,226
Collected,	90	7,356
Purchase,	88	55,797

Among the more important accessions of the year should be mentioned the large collections from Egypt and Italy secured for the department of Anthropology by President Ayer. These include a large number of *Stellæ* tombstones, covering a long period of Egyptian history, a valuable addition to the already important collection of Egyptian and Etruscan jewelry, some important pieces of bronze, and two very remarkable stone tombs of the early Etruscan period. With the material obtained by President Ayer came a large collection of fabrics of the fifteenth, sixteenth, seventeenth, and eighteenth centuries, secured by Vice-President Ryerson, chiefly in Venice. This is a valuable addition to our already interesting collection of middle-age tapestries and fabrics. Rev. T. W. Woodside, for many years a missionary of Benguela, Africa, enabled the Museum to obtain a small but extremely valuable collection of ethnological objects from the native inhabitants of Portuguese Southwest Africa. A large collection of objects, numbering about 600 specimens, from remote islands of the Pacific, was purchased of Mr. W. T. Shepherd, of Boston. In April the Museum received its third consignment of ob-



MODEL OF THE MOON—FIELD COLUMBIAN MUSEUM.

(Diameter, 19 feet.)

jects from the Port Clarence Eskimo of Alaska. The Alaskan collection now numbers over 10,000 objects. In the Division of Physical Anthropology over 150 skeletons have been received, including many interesting specimens. Dr. R. Parkinson, of Ralum, Bismarck Archipelago, has presented this department of the Museum with 52 Papuan skulls from the Gazelle Peninsula of the Island of New Britain. This very valuable and highly appreciated gift was made in exchange for Museum publications. It is hardly necessary to remark that the transaction has left the Museum largely indebted to Dr. Parkinson. Not the least of the valuable contributions to this department resulted from the expedition of the Curator of the department to Arizona, of which mention is made elsewhere. The most important collection acquired by the department of Botany during the year was the complete herbarium of the late Mr. M. S. Bebb, including his library, letters, and drawings. Through this collection and that of Dr. Schott, obtained the previous year, the herbarium of the Museum has been in many important collections projected backward to the middle of the present century. Locally, the herbarium of Mr. Bebb is of great value, as it represents much of the flora of the Western States, and about all that of Illinois. His collections of willows is very complete and, in connection with his notes, drawings, and communicated types, is acknowledged to be the very best. Another collection of Yucatan plants has been received from Dr. Gaumer, consisting of many thousand representatives from old and new localities on the peninsula, which collection will form the basis of a fourth contribution to the flora of that region and will provide a large amount of valuable duplicate material for exchange. In addition to the above more notable accessions to the Department of Botany, the following sets have been acquired during the year: Pringle and Palmer's new Mexican material; Anthony's Insular Mexican collection; Lumholtz's Mexican plants; Peary Relief Expedition Plants of Labrador and Greenland; Schlechter's African centuries; Heller's Sandwich Islands, New Mexican, and Texan plants; Millspaugh's West Virginian and New York plants; Pollock's West Virginian species; Lotentz and Hieronymus' Argentine flora; Allen's plants of the Cascade Mountains; Dr. Edward Palmer's Florida collection of 1874; Franchsschi's Grecian plants; Lansing's centuries of the plants of the Lake Michigan Basin; and the Curator's plants of Mackinac Island. In Geology, the gift of Mr. L. W. Reese, of Chicago, of the Schmidt-Dickert relief model of the moon is a notable acquisition. This great model, 19 feet in diameter, exhibits with scientific accuracy the surface features of the moon. It was prepared

with great care from the charts of Beer and Madler and of Dr. Schmidt of the Athens Observatory, undoubtedly the greatest authority upon the topography of the moon of his time. Five years were occupied in its construction. The sections of the model have been kept for some years in Chicago, but they have not been available for observation until the gift of Mr. Reese made possible its erection by the Museum. It is believed that the model as exhibited will prove of great interest to the public in general and especially to students of astronomy. Besides the collections made in the field by the Curator and his assistants, mention of which is made under the proper heading, many additions of value have been gained through gift, purchase, or exchange in the Department of Geology. The meteorite collection has been enriched by several fine specimens. These include, among others, sections of the Roeburne, Mungindi, San Angelo, Tonganoxie, and Sacramento Mountain meteorites. A magnificent specimen of aurichalcite, undoubtedly the finest in existence, has been added through the generosity of Captain A. B. Fitch. A fine series of stalactites and other cave products from Mammoth and Wyandotte Caves was received from E. B. Baldwin. Other cave specimens of unusual beauty have been obtained by purchase and exchange, and the collection in this line is now one of unusual size and value. A collection of varieties of candles made from petroleum has been donated by the Standard Oil Company and makes an attractive and economic display. R. W. Goodell gave a fine specimen of fossil fish from the Green River, Wyoming, beds; G. H. Hammond a large and complete collection illustrating varieties of clay stones, and Mr. C. C. Hafer a series of Trenton fossils from Minnesota. Two tusks, several teeth and leg bones of great size, of the Mammoth, brought from Alaska by Miner W. Bruce, have been received as a loan and placed on exhibition. An unusually perfect skull and part of a skeleton of a species of *Elotherium* were obtained by purchase. A petrified egg of a miocene bird acquired at the same time deserves mention as being a specimen of more than usual scientific interest. Specimens of a number of rare minerals were obtained by exchange with Dr. Otto Kuntze, and many fine specimens of crinoids of the Burlington group by exchange with J. M. T. Myers. Miscellaneous minerals and fossils of value were obtained by exchange with the Case School of Applied Science. Four beautiful slabs of marble, donated by the Georgia Marble Company, deserve mention, also a large collection of ores and minerals of economic value from the Nashville, Cincinnati, and St. Louis Railroad; about 1,200 briquettes from George H. Hartwell; a collection of silver-

lead ores of the Kootenai District from R. I. Kirkwood, and a collection of Colorado ores from Mrs. E. F. Dyche. Many valuable specimens, illustrating Western ores and minerals, were secured by the Curator and Assistant Curator while visiting the Omaha Exposition, and other specimens have been promised by the exhibitors there. In the Department of Zoology the largest contribution of material has come from the expedition of its Curator to the Olympian Mountains and the Northwest, comprising about 520 specimens. President Ayer presented the department with thirty-four rare mammal skins with their skeletons, from Madagascar, collected by Dr. Forsyth-Major. The American Museum of Natural History presented a very valuable amount of exchange material, including buffaloes, greenland seals, walruses, etc., etc. Mr. Frank C. Bestock presented a valuable lot of material. Mr. Choë, an assistant in the Division of Entomology, collected several thousand specimens during the year. Dr. Meek, Assistant Curator of Ichthyology, was very successful in two expeditions. By purchase the department has acquired numerous specimens of fishes and many very valuable skins, as will appear from the detail list of accessions elsewhere. The Department of Ornithology has had a number of desirable accessions during the year, mostly resulting from the local expeditions of the department. It will be observed from the list elsewhere that many valuable specimens were also obtained by purchase. An important and interesting collection of folk-lore of precious stones was purchased for Higinbotham Hall of Mr. George F. Kunz. Following is a table showing the amount expended on collections and articles purchased during the year for the different departments:

Department of Anthropology,	\$1,272.10
Higinbotham Hall,	1,150.00
Department of Geology,	905.65
Department of Zoology,	301.17
Department of Botany,	5,807.32
Department of Ornithology,	47.89
Total,	<u>\$9,484.13</u>

The amount expended for collections in the Department of Botany represents the price paid for the Bebb collection, \$5,000, and half the amount due on the Gaumer collection, \$650.

EXCHANGES.—Reference is made elsewhere to the system of exchanges adopted by the Museum, and in its proper place will be found a list of the materials received through this medium. The

relations sustained with contemporaneous agencies for an exchange of material are very satisfactory and have been productive of much benefit. The preliminary negotiations in the matter of these exchanges are conducted by the curators of departments, and when ready for conclusion are submitted to the Director for his approval. The cost of carriage is paid in each case by the party receiving the material and, as stated, regular accounts are kept by the Recorder with the persons or institutions with whom exchange relations are established. The catalogues of material available for exchange, heretofore issued, have assisted materially in opening correspondence, and several other institutions have adopted this method of acquainting museums and collectors of their possessions. The number of specimens sent in exchange during the year was 3,548, representing thirty-nine different transactions. The number of specimens received in exchange was 4,226, representing twenty-five transactions.

EXPEDITION AND FIELD WORK.—The expeditions and field work of the Museum have been confined this year to North America, and have all been authorized with special regard to the direct needs of the department in each particular instance, thus carrying out the instructions of the Executive Committee, that staff collections and original research must be upon an outlined system, and confined, as far as possible, to the domestic field. Following is a list of the expeditions of the Museum since the date of the last report :

DATE.	LOCALITY.	COLLECTORS.	MATERIAL.
Nov. 9, 1897,	Northeast Arkansas,	S. E. Meek, . . .	Fishes, etc.
Jan. 15, 1898,	Missouri,	O. C. Farrington,	Fossils, etc.
Jan. 31, 1898,	Tampa, Florida, . . .	S. E. Meek, . . .	Fishes.
Jan. 28, 1898,	Oraibi, Arizona, . . .	George A. Dorsey and F. B. Melville,	{ Plaster Casts Moki Indians.
Mar. 15, 1898,	Southwest Missouri, .	H. W. Nichols, . . .	Lead and Zinc Ores.
May 31, 1898,	Missi'pi and Arkansas, (North American Forestry), . .	C. F. Millspaugh,	Plants and Woods.
Mar. 22, 1898,	Bad Lands, S. Dakota,	O. C. Farrington and E. S. Riggs,	
July 12, 1898,	Olympian Mountains,	D. G. Elliot and C. E. Akeley, . . .	Mammals.
July 15, 1898,	Northern Michigan, (North American Forestry), . .	C. F. Millspaugh,	Plants and Woods.
June 30, 1898,	LaCrosse & Elroy, Wis.,	E. B. Choep, . . .	Insects.
July 25, 1898,	Havana, Illinois, . . .	S. E. Meek, . . .	Fishes, etc.
Sept. 9, 1898,	Mitchell, Indiana, . . .	S. E. Meek, . . .	Fishes, etc.

Mr. Dorsey, Curator of the Department of Anthropology, accompanied by Mr. F. B. Melville, visited the province of Tusayan,

Arizona, in December and January. The object of the expedition was to make casts of a number of Hopi Indians, for the purpose of reproduction. Mr. Dorsey, in his report, says: "Although we suffered greatly from the unusually cold weather, and from several mishaps generally incident to a wagon journey in Arizona, the expedition was very successful, and, as a matter of fact, we secured two more figures than we had anticipated. In addition to the casts, I secured a small collection, supplementing the one I made in August last year. This consisted chiefly of garments and paraphernalia necessary for the building of the Hopi groups. At this time I also passed four days in exploration of the ancient Hopi ruin of Homolobi, near Winslow. Here we secured over one hundred specimens of most interesting ceramics and a number of stone implements and fetiches." During the month of April, Mr. Dorsey took advantage of the unusual opportunity offered by the presence in Chicago of a band of Esquimaux, brought here by Captain Miner W. Bruce, to whom the Museum is chiefly indebted for its extensive Alaskan collections. Captain Bruce kindly placed these people at the disposition of the Museum, and they came to the building day after day, until in all casts of nine individuals had been completed. These were made under extremely favorable conditions, and the results obtained promise to be entirely satisfactory. In the Department of Botany, Mr. Millspaugh, the Curator, has continued his work upon the collection of North American forest trees, making trips to Southern Illinois, Mississippi, Arkansas, the Upper Peninsula of Michigan, and Northern New York, during which a large amount of material was secured and much valuable data acquired. The most important field work undertaken by the Department of Geology during the year was the equipment of an expedition for the collection of vertebrate fossils in the Bad Lands of South Dakota, Nebraska, and Wyoming. This was intended, chiefly, to begin a collection for the purpose of representing the structure and characteristics of the ancient vertebrates which inhabited this region during Tertiary times. Mr. Farrington, in his report of this expedition, says: "No region in the world is richer in the remains of ancient mammals than that mentioned, and the work of collecting and preserving them before they decay seems of paramount importance. Aside from the intrinsic interest which the structure of these ancient animals possess, it seems hardly less than a duty on the part of the Museum to secure and preserve as far as possible these remains, as often as they are exposed by the hand of Nature. The expedition sent by the Museum this year devoted its attention mainly to collecting mammal remains of the White River

and Loup Fork ages. I was ably assisted in the work of collecting by Mr. E. S. Riggs, and about three months were spent by the party in the field. The work was conducted during the first seven weeks in the Bad Lands of South Dakota, after which the "Corkscrew" beds near Harrison, Nebraska, were visited. The party then explored the escarpments of the Deep River beds near White Sulphur Springs, Montana, and the remainder of the time available was spent in the Hat Creek basin of Wyoming. While the material is as yet too largely in the matrix to be accurately reported upon, the expedition may be characterized as remarkably successful. The amount and quality of the material collected are such as amply to repay for the outlay, and it was clearly demonstrated that the material could be secured by collection in the field far more profitably than by purchase. The quantity of material obtained for a given outlay was larger. The work of collection was directed towards a needed kind of material, and details of scientific value were noted which could not be gained with a purchased collection. Among the specimens secured were a nearly complete skeleton of *Titanotherium*, a large skull, with jaws and thirteen vertebræ, three skulls and many miscellaneous bones of animals of the same genus; two skulls, jaws, and leg bones of *Aceratherium*; a probably complete skeleton of *Pœebrotherium*; a skull of *Protoceras*; twenty-five skulls, some with jaws, and leg bones, of *Leptauchenia*, and about twenty-five skulls each of species of *Eporeodon* and *Oreodon*; a skull, jaws, vertebræ, and leg bones of *Cynodesmus*; skulls and miscellaneous bones of *Hyracodon*, *Meshippus*, *Hyaenodon*, *Daphænus*, and *Leptomeryx*, and representative bones of three genera of rodents. These specimens will be cleaned and mounted during the winter months, and from them it will soon be possible to make a creditable exhibit, as a beginning of a collection of ancient vertebrates. Besides the main work of the expedition, many auxiliary results of value were gained. From the "Corkscrew" beds of western Nebraska five fine specimens of the remarkable *Dæmonelix*, or "devil's corkscrew," were secured. These specimens have spirals three to eight feet in length, with rhizomes attached. From the Fort Pierre beds of South Dakota a choice collection of the richly-colored amber barite, golden calcite, and chalcedony geodes, which occur in the concretions of these beds, was obtained. About one hundred photographs illustrating geologic and scenic features were taken, and about forty specimens of plants showing the character of the flora of the region were collected. During the stay of the party in South Dakota I visited the principal mining camps in the vicinity of Deadwood, and obtained a representa-



TYPICAL HOPI HOME—ETHNIC GROUP—FIELD COLUMBIAN MUSEUM.

Cast from life and sculptured by F. B. Melville.

tive series of the ores and country rocks of the Homestake and Gilt Edge mines, and others of that region." During February, Assistant Curator Nichols, of the department of Geology, spent three weeks among the zinc-lead deposits of Southwest Missouri, studying the ores and metallurgy of the region, collecting ores, metallurgical products, and minerals, and taking photographs of the workings, both above and below ground. Besides the ores and metallurgical products collected, exceptional specimens of the fine minerals for which this region is famous were secured. The photographs taken were used to illustrate a lecture upon the region given in the spring course. As a result of this trip, the economic collections have been enriched by a collection of zinc and lead ores and associated rocks from the most important zinc-producing region of the country. A collection illustrating the ore hearth process of lead smelting adds much to the completeness of the metallurgical collection. In January the Curator spent some time in investigating a find of mastodon bones near St. Louis, Mo. A large amount of the remains was found in place, but owing to excessive rains, but few specimens could be collected. During the return trip of the expedition to the Bad Lands, the Omaha Exposition was visited and a number of specimens secured from exhibitors there. Mr. Elliot, the Curator of the Department of Zoology, and his assistant, Mr. C. E. Akeley, were commissioned upon an expedition to the Northwest in July. Under date of September 13, from the Olympian Mountains, Mr. Elliot writes: "The expedition to the Olympian Mountains, which I am at present conducting, has thus far secured five hundred skins of deers, carnivora, and rodents, which collection we hope to increase considerably before our labors are ended. This collection is exceedingly valuable, coming as it does from hitherto unknown localities where no naturalist has ever penetrated. There are probably species new to science among them, but how many cannot be determined until they have been examined and compared with other material. The country in which these have been procured is the roughest and most difficult to traverse that I have ever seen, and my experience in the various mountain ranges of North America has been very extensive. A great portion of the Olympians is absolutely impassable, and we have reached a point beyond which nothing, unless provided with wings, can go, while from our camp we can look over a vast extent of the range totally unknown and unapproachable. A naturalist, therefore, can fully appreciate the value of the material we have secured. Even if already known, specimens coming from such localities are of almost as much

value as if undescribed, and will prove of great assistance in settling questions of geographical distribution and others of equal importance. Snakes and batrachians are not plenty in the range, but we have secured some of both, which I am sure will prove of much interest, and I hope to be able to obtain some of the fishes of this region. All these, whether known or unknown, will be valuable additions to our Museum, where they are entirely unrepresented." It is expected that this expedition will return to Chicago the first of the coming month, and the results of the expedition will undoubtedly appear in the publication series of the Zoological Department. During the year the Assistant Curator of Zoology made a few collections, one in north-eastern Wisconsin, one at Havana, Ill., and a few in the vicinity of Chicago. A small collection was also obtained by the Assistant Curator while attending the National Fishery Congress at Tampa, Florida. The collections from Wisconsin and Havana, Ill., are being used in making exchanges. One set has been sent to Stanford University; other sets are being prepared for the British Museum, the United States National Museum, and the Museum of Comparative Zoology, Cambridge. During the year, Mr. Chope, Assistant in the Department of Zoology, has been very energetic in collecting insects in the vicinity of Chicago. He visited La Crosse and Juneau counties, Wisconsin, in the same pursuit, procuring over 1,600 specimens. He has collected many cocoons of moths and butterflies in the vicinity of Chicago, from which 148 specimens have been hatched in the laboratory of the department, thus obtaining more perfect examples than could be secured in any other manner. Several species have been reared from the egg. Those of one brood have been killed at different times, thus securing a very complete series from the egg to the imago.

INSTALLATION, REARRANGEMENT, AND PERMANENT IMPROVEMENTS.—

The permanent improvements within and about the Museum building during the past year have been quite extensive, and have in a measure been brought about by the demands for greater convenience and better facilities for the prosecution of the daily work of the institution. New offices have been constructed in the east and west courts respectively for the Curators of Anthropology and of Ornithology, while the offices and laboratories of the Departments of Botany and of Zoology have practically been reconstructed, largely extended, and rearranged in the interior. A new studio, complete and modern in every respect, has been constructed in the third gallery of the east court for the section of Photography. A poison-

ing-room and two new storerooms, equipped with storage racks and trays, have been built for the Department of Anthropology. A shipping-room has been constructed in the west court. In the Department of Geology the laboratories and workrooms have been rearranged, and the two rooms formerly used as laboratory and library are now divided into laboratory, library, storeroom, and workroom. A brick addition to the boiler-house has been erected, and an assaying-room for the use of economic geology has been fitted with furnaces connected with the smoke-stack in the boiler-house. Besides all of the above additions and improvements, making great demands upon the mechanical force of the institution, the usual and routine repairs, and the attention required by the roof and the exterior of the building, have been kept up. In the Department of Anthropology the east court has been entirely reinstalled, all the material not relating to Archæology having been transferred to appropriate locations. The court is now entirely devoted to American Archæology, the north alcoves containing North American Archæology, the central portion Mexican and Central American Archæology, and the south alcoves South American Archæology. Every case of the court has been reinstalled and rearranged, and the material has been entirely reclassified. In the north court twelve cases have been added within the present year. Six of the new cases are devoted to Etruscan Archæology, the contents of each tomb being installed as a unit. Hall No. 7, formerly devoted to Chinese Ethnology, has been used for the last six months as a workroom for casting, molding, and sculpturing. The Chinese Joss-House material which heretofore occupied the room, no longer being regarded as worthy of exhibition, has been mostly destroyed, that of any value whatever being boxed and stored. The contents of Halls 16 and 17 have been removed, together with all the cases. Both halls have been renovated, and now present a fresh and attractive appearance. Hall No. 16 has been recased with new standard cases, and is devoted to South American Ethnology, that portion which relates to British Guiana and Venezuela having all been installed. For the first time there is used in this hall a portable screen which divides the case into two equal halves, and does away with the cumbrous and unsightly fixed partition. Hall No. 17 has also been recased with new standard cases and is to be devoted to the Ethnology of the Southwest, chiefly that of the Hopi. A large group, showing the characteristic features of a Hopi dwelling, the several inmates being engaged in domestic pursuits, has been completed. A young man throwing a boomerang has also been installed, and figures of a bride and two

groups of Katsina dancers have been completed. Halls Nos. 10 and 11 are being dismantled and the old ill-assortment of cases will be replaced with new standard cases. Plans have already been made for a complete reinstallation of these rooms, and casts have been made for nine figures, which will be arranged in four groups. For the first time in the history of this department, the work of the preservation of specimens from the ravages of insects is in a condition that seems to guarantee the protection of the material, which has already noticeably suffered from inattention. In the Department of Geology some slight changes have been made to provide for the erection of the model of the moon in Alcove 103 of the west court. The position of the glacial slabs has been somewhat changed, and the smaller specimens formerly contained in the alcove have been removed to Halls Nos. 36 and 59. The cases in Hall No. 35, containing the collection of vertebrate fossils have been replaced by upright cases brought from Hall No. 7. This was deemed desirable because the old cases were too small and so loosely built as to give little protection from dust. With the new installation a much better light is secured, and specimens will no longer suffer injury from dust. In the same hall a collection of about 500 specimens, illustrating the Niagara fauna of Chicago and vicinity, has been installed in two floor cases brought from the east court. The collection has hitherto been in storage for lack of case room. It is accompanied by a collection illustrating methods of petrification, prepared specially for instruction of the pupils of the public schools. The cases used were remodeled from their former shape, and, besides other changes, were fitted with brackets made after a design prepared in the Museum, which permits adjustment of the shelf to any slope. In Hall No. 62, devoted to the meteorite collection, the old wall cases have been replaced by some of a more desirable pattern brought from Hall No. 7. The meteorite accessions, including the Long Island meteorite, have been installed in these, and the change, together with some other rearrangements, has resulted in a marked improvement in the appearance of the hall. At the same time a better protection from dust has been secured for the specimens. Hall No. 77, devoted to the display of fictile materials, has been entirely rearranged. The pyramids of brick, sewer pipe, etc., which formerly occupied much of the space, have been replaced by more valuable material. A series of 1,200 briquettes, made from clays of as many different localities of the United States and Canada, illustrates the adaptation of different kinds of clay to brick making. A second collection shows the composition of clays and the effect of impurities upon their value. Another illustrates fine clays and



METEORITE HALL—LOOKING NORTH—FIELD COLUMBIAN MUSEUM



METEORITE HALL—LOOKING SOUTH—FIELD COLUMBIAN MUSEUM.

their uses. All these make up an unusually complete and instructive exhibit. A collection illustrating the varieties, origin, and composition of soils has also been prepared and installed here, the material having been largely gathered by the Assistant Curator. This was prepared chiefly in response to requests from teachers in the public schools who wished to use it for purposes of instruction. Other collections shown in this hall illustrate the origin and methods of manufacture of mineral paints, of varieties of sand and cement, of varieties of pressed brick, and of varieties of brick clays and fire clays. In Hall No. 79 the collection of zinc ores and products has been rearranged to include the material obtained by the Assistant Curator in Joplin and vicinity. A rearrangement of the gold, silver, and lead ores is now in progress in Hall No. 72. This has been made necessary in order to provide for the exhibition of a large amount of material now in storage, and to improve the classification of the collections. A series of about fifty large framed photographs, illustrating the methods of mining and metallurgy in use in Ecuador and Chile, has been placed upon the walls in this hall. The phosphates received from the Nashville Exposition have been installed with the collection previously exhibited in Hall No. 78, increasing its size and value. Halls Nos. 74 and 75, occupied by the departmental library and laboratory, have undergone extensive alterations which add much to their appearance and increase the working facilities of the department. In the library the books have been made to occupy but half the space they formerly filled. The area so gained has been partitioned off and fitted with storage trays and tables for the use of the assistants in vertebrate paleontology. The laboratory, likewise, has been divided by a partition into two rooms, one of which continues to serve as the laboratory. It has been provided with water and air baths, sink and table, and is piped for gas and water. A Becker chemical balance, sensitive to one-tenth of a milligram, and a set of platinum dishes have been provided. The laboratory is now, therefore, fairly well equipped with facilities for chemical work which have long been needed, and it is hoped in the coming year to carry on a number of investigations in this line. The three Goyard assay furnaces which were formerly kept in the laboratory have been removed to the boiler-house and set up in a room specially built for the purpose. These will give facilities for making assays, for which there is frequent demand. The transparencies, enlarged from cuts in *De Re Metallica*, which were formerly exhibited in the laboratory, are now shown in classified order in Halls Nos. 72 and 79. In the Herbarium of the Department of Botany very extensive

improvements have been made, and every facility given for carrying out the plans outlined by the Curator of that department. Ten large air-tight tin cases have been added, in which duplicates may be kept secure from dust in an atmosphere of carbon bi-sulphide. These cases are divided into fifteen compartments, and contain at the present the large duplicate collection of Yucatan plants just acquired, which are being rapidly arranged for distribution in exchange with several institutions in this country and Europe. In his report Mr. Millspaugh says: "In these cases the plants are arranged on sheets of light manilla paper, plainly numbered, and the fascicle of each number placed in a folded sheet used as a genus cover. These are arranged consecutively, and from them a plant of any special number, or a number of plants of any special number, century, or set, can be quickly assembled for distribution at any time, meanwhile being thoroughly protected from insect depredations. Eighteen similar tin cases, having chiefly racks and tin trays instead of compartments, have been placed in the herbarium for the storage of seeds, fruits, fungi, and other material which needs protection from pests. These, like the cases previously mentioned, can be bi-sulphided at any time. The capacity for storage of material in a manner convenient for quick and ready reference has been considerably augmented by the original cases that contain the Bebb herbarium, fourteen in all." With reference to the methods of the herbarium, the Curator, in a most interesting report, says: "Upon the arrival of a package of plants destined for the herbarium, an accession card is filled out and sent to the Recorder of the Museum. This card states from whom the package was received, how it was acquired by the Museum, the collector's name, the date of the collection, locality, and number of specimens contained. The plants are then poisoned and laid out upon mounting sheets, to which labels are immediately attached. These sheets are placed in boxes in such a manner that the plants cannot possibly shift or mix, and are turned over for mounting. After mounting, each sheet is impressed with the seal of the herbarium, which includes a space for the consecutive catalogue number of the department. The collection is then arranged in the order of the collector's numbers, each species is entered in the continuous inventory book or department catalogue, and the catalogue number of each sheet is written in the seal, after which the sheets are distributed to their proper genera or orders in the herbarium. Thus a complete record of all species, localities, collectors, and collections is always ready at hand for reference, but any collection can be reassembled for reference as a whole by monograph-

ists and students in Ecology. In case of the records of an herbarium as a whole, like that of a Schott or Bebb, a special seal is used, stating 'Herb. Schott' or 'Herb. Bebb,' in addition to the words 'Field Col. Mus.,' in order that the sheets may ever be credited to the previous botanist through whose hands they have passed. These acquired herbaria are not distributed in the herbarium until each sheet has been catalogued, numbered, and credited to the original collector. In addition to the inventory books, a running card catalogue of localities and collectors keeps pace with the accessions of collections and the reference data are thus made complete. Although this entails a large amount of clerical work, and draws upon the time of the Curator, yet the result in usefulness, it is felt, will amply repay in the end. This method also extends to and includes the economic collections upon the walls and in the cases of the department. So complete is the record that, should the whole collection be taken from the cases and thrown together in chaos, a new incumbent could readily reinstall the whole without loss of time or confusion of records or labels. Within the herbarium another method has been adopted, destined to save a vast amount of time to those who consult the collections, each large biological division of the world being represented by a different colored genus cover; temperate American specimens being in manilla covers, tropic and sub-tropic American in orange, European in green, Asiatic in red, African in blue, and Oceanian in yellow." In the Department of Ornithology, Hall No. 27 has undergone needed alterations in reducing the depth of the cases, thus bringing the individual specimens closer to the glass and rendering them more easy of inspection and the labels more readily consulted. In the Department of Zoology, the contents of Halls Nos. 19 and 20 have been rearranged in the cases, which were new one year before, and by constructing partitions with shelf brackets and including more specimens in the same case, room has been provided for the installation of new mounted specimens. In the west court two great groups have been installed in large mahogany plate-glass cases—the Oryx and Waller's Gazelles. As stated, the offices, work-room and laboratories of the department in the third gallery of the south court have been enlarged and entirely refitted. A large number of improved storage cans has been provided for the laboratories, and immense racks for alcoholic specimens have been constructed in one of the new rooms. The suite of apartments thus provided and equipped furnishes the best example of convenience and economy of time in the conduct of work for which it is intended. During the past year nearly all the collections in the

Department of Zoology have been carefully gone over, and the large collection of shells and the contents of the hall of fishes have been entirely reinstalled. In the Osteological Hall two new cases have been provided, and all of the material rearranged to accommodate the specimens secured during the year. In this division, with new appliances provided for the use of the Osteologist at the shop, corner of 56th street and Jefferson avenue, considerable work has been done furnishing new skeletons for exhibition, while still more are so far advanced that they will soon be ready for the cases.

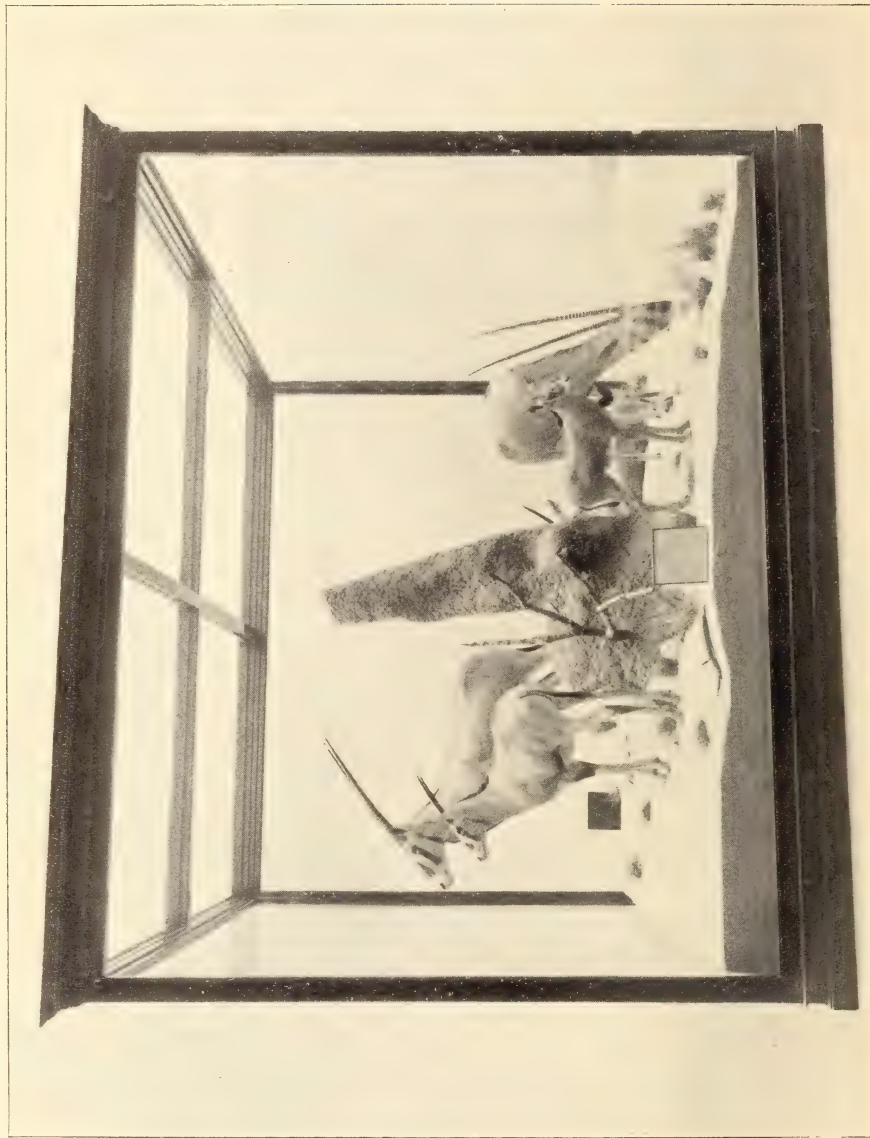
PHOTOGRAPHY AND ILLUSTRATIONS.—This division moved into its commodious and very complete studio and storage and work rooms in the third gallery of the east court during the year and is performing very creditably its share of the work of the institution. While both the Curator of Botany, who has charge of this department, and the operator have been away upon expeditions a great deal of the time, yet the work has been in a measure constant and much more comprehensive than any previous years, owing to increased facilities and conveniences. The following table shows the actual results, only, of a large number of photographic operations, many of which require hours of preparation :

Department.	Negatives.	Prints.	Lantern Slides.
Anthropology,	79	224	112
Botany,	47	208	113
Geology,	145	47	147
Zoology,	46	152	34
Expeditions,	147	...	...
	464	631	406

Enlargements, 101. The operator has also stored in new cases and catalogued 3,000 negatives.

PRINTING.—The printing-office becomes more essential and a great saver of time and money every year. Considerable new type and several new appliances have been added to the material of this section, and the character, no less than the amount, of work executed is gratifying in the extreme. During the year the following work has been performed by this small, though important, section :

	Labels.	Other Impressions.
Anthropology,	2,270	21,980
Botany,	308	11,350
Geology,	3,289	.....
Zoology,	623	23,100
Ornithology,	356	350
Director's office, . . . . .	.....	29,541
Higinbotham Hall,	155	.....
Library, . . . . .	.....	7,700



GROUP OF ORYX—FIELD COLUMBIAN MUSEUM.

(Dimensions of Case, 12x12x10.)

C. E. Akeley, Taxidermist.

In addition to the above, the mailing list has been corrected as required by the issuing of the different publications, and 500 copies of an Herbarium pamphlet have been printed.

TAXIDERMY.—Notwithstanding his three months' absence on expeditions in the Northwest, Mr. Akeley, the chief taxidermist, has created two more striking groups from the material obtained on the African expedition—Waller's Gazelles and the oryx group. The same appreciation of the high purpose of his work, the same skillful blending of nature and of art, the same conspicuous care in detail, distinguish these groups as they marked the other creations of which he has been the author. The facilities provided for this important and most valuable division of the Museum are entirely inadequate, not only as to space in which this work must be performed, but as to the conveniences and appurtenances, and the skilled assistance available. The Curator of the Department of Zoology, to whom the taxidermist is assigned, has submitted an outline for the expansion of this section and for the provision of such aids and agencies as will enable the force so fortunately at command of the Museum to take advantage of the unusual conditions and of a large amount of material of exceptional value and interest, and to produce in greater quantity and in quicker succession the masterpieces in the representation of animal life, of which Mr. Akeley is so highly competent. I shall ask for these recommendations of the Curator of the Department of Zoology the earliest consideration of the Executive Committee.

GUARDS AND FIRE PROTECTION.—By instruction of the Executive Committee, the guard of the Museum was increased one member during the year, to permit the execution of the rule of the committee granting to each member of this branch of Museum service an annual two weeks' vacation, with pay. Not one complaint of inattention or incivility to the public on the part of a guard has reached the Director during the year. I wish to call special attention to the excellent discipline, general deportment, and soldierly and genteel appearance of the guard of the Museum, to whom the safety of the building, the security of its contents, and the convenience of the public are due in a large measure. The appliances of the fire department have been increased by the exchange of the two-gallon extinguishers for new three-gallon machines. The equipment at present consists of a Champion chemical engine with a capacity of 55 gallons, and 300

feet of hose which will reach every part of the building. A hose-cart is located in each court of the main building, and of six hose-reels, one is placed in the east annex, one in the west annex, and four upon the gallery floor. In each court 2,500 feet of hose are distributed on the various hose-reels and racks, together with ten $\frac{3}{4}$ -inch nozzles; three 1-inch nozzles; four 26-foot fire-ladders; seven pike-poles of various lengths; twenty-six fire-axes, and one hundred and forty-five buckets. Eight fire-hydrants are located within the main building, and twelve more just outside of the building. The water pressure has been increased by connection with the park system instead of the city water main. The present system has a hydrant pressure of about forty pounds, and gives a fair hydrant stream on the gallery floor, but in case of fire higher up, the chemical engine alone could be relied on. An understanding has been reached between the Fire Department of the Museum and the City Fire Department that, in case of fire, the Museum hose would be connected by the first fire engine company, which would save delay in getting water higher than the gallery floor. The apparatus for local fire alarm has been improved by putting in an automatic mercurial fire alarm in the north, east, and south balcony offices, auxiliary fire alarm boxes in the east and south balcony offices, and a fire alarm box in the boiler-house. The daily inspection through the building has been faithfully performed during the year. The Chief of the Chicago Fire Department, at his annual inspection, reported the building in good order. In fact, he had no complaint to make. The regular hours of inspection for danger from fire through the basement are 7 and 11 o'clock A. M., 3:30 and 9 o'clock P. M.; the main dome at 4:30 P. M., and the vaults at 4 P. M. The balcony offices and the roof are inspected every Saturday. The guards are drilled in fire drill, and the janitors have instructions in case of fire. The members of the fire department continue to look after all the electric work of the building, trimming forty arc lamps daily, keeping them in repair, and also keeping in repair the burglar, telephone, and watch systems of the building.

ATTENDANCE.—The total attendance of the year was 3,963 more than in the year previous. The increase in paid attendance was 189, and the increase in the attendance of teachers was 45. More persons visited the Museum on a single day than on any day since October 4, 1894, the number being 6,220. An analysis of the attendance during the entire year appears in another portion of this report.

The following is a gratifying list of the school classes (thirty pupils or more) that visited the Museum during the year just closed :

Schools. Chicago—	Teachers.	Pupils.
Hyde Park High,	1	101
Hyde Park High,	1	85
North Division High,	1	80
Normal,	2	63
Normal,	2	67
Normal,	2	67
Normal,	1	65
Normal,	2	59
Normal,	4	306
Sherwood,	2	50
Sherwood,	1	38
D. S. Wentworth,	2	74
D. S. Wentworth,	2	51
Mark Sheridan,	1	42
Fernwood,	4	79
Kershaw,	1	36
Graham,	2	71
Froebel,	5	110
La Grange Public School,	1	39
Valparaiso (Ind.) Normal School,	—	50

The following comparison between the daily attendance in the year ending Sept. 30, 1897, and the year ending Sept. 30, 1898, will be interesting:

	Increase.	Decrease.
Total attendance,	3,963	. . .
Paid attendance,	189	. . .
Attendance of school children on pay days, . . . . .	. . .	1,680
Attendance of students, . . . . .	. . .	573
Attendance of teachers,	45	. . .
Attendance of members,	91	. . .
Average daily attendance, 1897, . . . . .	. . .	603
Average daily attendance, 1898, . . . . .	. . .	614

ACKNOWLEDGMENTS.—It is proper to acknowledge the generosity and courtesy of the Chicago & Northwestern Railroad, the Great Northern Railroad, the Northern Pacific Railway, the Canadian Pacific Railroad, the Atchison, Topeka & Santa Fe Railroad, the Illinois Central Railroad, and the Chicago, Burlington & Quincy Railroad in transporting members of the Museum staff and material obtained on

expeditions. Also of the courtesy of Mr. H. J. Stadelman, of Marshall Field & Co.'s New York office, and of the foreign office of Marshall Field & Co. in this city, in clearing consignments at the Custom House.

During the summer the Curator of Anthropology, the Curator of Geology, and the Director visited the Museums of Europe. This opportunity is taken of acknowledging the attentions received at the hands of the officers of the institutions visited.

Herewith are submitted financial statements, analysis of attendance, lists of accessions, names of members, etc., etc.

FREDERICK J. V. SKIFF,

Director.



HERBARIUM—FIELD COLUMBIAN MUSEUM.

FINANCIAL STATEMENT.

RECEIPTS AND DISBURSEMENTS

During the Year Ending September 30, 1898.

RECEIPTS.

Cash in Treasurer's hands, Sept. 30, 1897,	\$ 5,211.72
Petty cash on hand, Sept. 30, 1897,	739.95
Dues of Members—	
Corporate,	\$ 195.00
Annual,	4,150.00
South Park Commissioners,	15,000.00
Chicago City R. R. Co.,	2,250.00
Joseph N. Field,	12,500.00
Lambert Tree,	5,000.00
J. W. Doane,	5,000.00
H. N. Higinbotham—Folk-lore Collection,	1,000.00
Sundry receipts,	118.52
Interest on Investments,	36,405.25
Interest on Bank Balance,	109.91
Admissions,	5,075.60
Check Rooms,	1,122.30
Sale of Guides,	328.50
Sale of Securities,	22,927.40
	<u>\$117,134.15</u>

DISBURSEMENTS.

Salaries,	\$40,210.04
Guard Service,	11,147.69
Janitor Service,	6,548.22
Fire Protection—	
Additions to Equipment,	\$ 100.00
Wages of Firemen,	2,760.00
Uniforms and Sundries,	68.88
	2,928.88
Heat and Light—	
Additions to Plant,	152.49
Wages of Engineer and Assistants,	2,759.74
Fuel,	3,372.98
Supplies, etc.,	887.44
	7,172.65
<i>Carried forward,</i>	<u>\$68,007.48</u>

<i>Brought forward,</i>		\$68,007.48
Repairs and Alterations—		
Wages of Carpenters, Painters and Roofers,	9,194.06	
Materials used—Paints, Oils, Hardware,		
Glass, Lumber and Plaster,	2,348.26	11,542.32
Furniture and Fixtures—		
Cases and Bases,	7,544.25	
Building Fixtures,	1,625.80	
Sundries,	115.50	9,285.55
The Library—		
Books and Periodicals Purchased,	274.02	
Binding,	300.50	
Sundries,	209.57	784.09
Sections of Printing and Photography,		522.96
Collections and Articles Purchased,		9,484.13
Installation Expenses,		2,686.94
General Expense Account—		
Freight, Expressage and Teaming,	1,942.42	
Stationery, Postage, Telegrams and Tele-		
phone,	875.59	
Publications,	1,996.69	
Expeditions,	3,287.65	
Sundries,	1,532.68	9,635.03
		<hr/> \$111,948.50
In Treasurer's hands, Sept. 30, 1898,	4,445.70	
Petty Cash on hand, Sept. 30, 1898,	739.95	5,185.65
		<hr/> \$117,134.15

ATTENDANCE AND RECEIPTS FOR THE YEAR ENDING SEPT. 30, 1898.

ATTENDANCE.

Total Attendance,		224,246
Paid Attendance—		
Adults,	10,802	
Children,	1,026	20,918
Free Admission on pay days—		
School Children,	5,272	
Students,	856	
Teachers,	417	
Members—Corporate,	41	
Annual,	620	
Life,	22	
Officers' Family,	83	
Special,	16	
Press,	13	7,340
Admission on Free Days—		
Saturdays,		37,300
Sundays,		138,679
Highest Attendance on any day (August 28, 1898),	6,220	
Lowest " " " (February 1, 1898),	6	
Highest Paid " " " (July 4, 1898),	469	
Average Daily Admissions (365 days),	614	
Average Paid Admissions (261 days),	80	

RECEIPTS.

Guides sold—1,314 at 25 cents,	\$ 328.50
Articles checked—22,446 at 5 cents,	1,122.30
Admissions,	5,075.60
	<u>\$6,526.40</u>

ACCESSIONS.

FROM OCTOBER 1, 1897 TO SEPTEMBER 30, 1898.

DEPARTMENT OF ANTHROPOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

AYER, EDWARD E., Chicago, Ill.

- 13 specimens of feather-work of California Indians, head-dresses, etc.—San Francisco.
- 2 etched and carved ivory pipes—Alaska.
- 2 etched ivory pipes—Alaska.
- 3 etched ivory bow drills—Alaska.
- 1 etched scraper jade-blade—Alaska.
- 1 large horn spoon (carved)—Alaska.
- 1 small horn spoon (carved)—Alaska.

BALDWIN, EVELYN B., Centralia, Ill.

- Bundle of reed torches, cobs, etc.—Mammoth Cave, Ky.
- 1 kyak.
- 1 double paddle.
- 3 harpoons.
- 1 kyak seat.
- 1 skin float.
- 1 reindeer skin, head and antlers.

BRUCE, M. W., Chicago, Ill.

- 5 pieces of Eskimo clothing—Alaska (exchange).

COLE, MRS. W. H., Chicago, Ill.

- Flowers of feathers and beetles' wings—Brazil, S. A.
- Carved open-work ivory vase.
- 1 royal Copenhagen vase, 8 inches high, decorated with human figure and head of cherub (loan).

CHERRIE, W. S.

- 1 calvarium, Boabos-Mobain tribe—Africa.

DEPARTMENT OF ETHNOLOGY, World's Columbian Exposition.

Collected by D. Scott Moncrieff :

- 7 skeletons, fragments, etc.—Dalles, Ore.

Collected by George A. Dorsey :

- Collection of skulls—Chancay, Peru.
- Collection of skulls—Sierra Gorda, Peru.

Collected by J. M. McLean :

- Crania (Blackfoot)—Alberta, Canada.

Collected by Dr. C. L. Metz :

- Skeletons and skulls—Miami Valley.

Collected by Lieut. R. E. Peary :

- Collection of skulls and bones—Greenland.

Collected by Lieut. W. E. Safford :

- Collection of Aymara bones from Chulpa—Oruro, Bolivia.

Collected by Lieut. G. P. Scriven :

- Skulls—Costa Rica.

Collected by H. I. Smith :

- Skeletons—Warren County, Ohio.

Collected by F. Starr :

Collection of pottery, baskets, rattles, arrows, bows, blow-guns, darts, spoons, etc.—Cherokee Indians, North Carolina.

Collected by Ernest Volk :

Skeletons, etc.—Trenton, N. J.

FIELD COLUMBIAN MUSEUM.

Collected by J. A. Burt, for Department of Anthropology :

Fragments of skeletons from an Indian mound—Sag Bridge, Ill.

Collected by George A. Dorsey :

1 skull (cleft palate)—San Nicolas Island, California.

2 skeletons (Blackfoot)—Blood Reserve, Canada.

Collection of ethnological material—Blackfoot Indians.

2 skeletons—Bonner's Ferry, Idaho.

Collection of ethnological material—Flathead Indians, Flathead Reserve, Montana.

Collection of ethnographical material—Kootenay Indians, British Columbia and Idaho.

Collection of ethnographical and archeological material from the Haidas—Queen Charlotte Islands, B. C.

Collection of ethnological and archeological material from the Moki Reservation.

Collection of ethnological and archeological material from Zuni, Pueblo, New Mexico.

1 basket and cover, 1 carved image—from grave at New Tongass, Alaska.

1 box, pipe, birchskin shirt (?) labret, 2 cedar bark collars, 2 pouches—from grave near Old Tongass, Alaska.

1 rattle, used in dog-eating and slave-killing ceremonies at China Hat, British Columbia.

1 stone celt, 1 arrow point (broken), 1 spear point, 1 slate implement—from ancient grave near Cedar Hill, Victoria, B. C.

Collection from Hagwilgait, near Hazelton, B. C.

Collection from the Tsimshians—British Columbia.

Collection of skeletons, skulls, etc.—from Hill Top Cemetery on Two Medicine Lodge River, Blackfoot Reserve, Montana.

Collection of Hopi ethnographic material—Oraibi, Arizona.

Collection of Haida skulls and skeletons—Queen Charlotte Islands British Columbia.

Collection of ancient pottery, etc.—from ruins of Homolobi, Arizona.

1 skeleton of Swede, aged 27.

Skeletons of negroes.

1 cadaver, Chinaman.

Brain and skeleton of Eskimo girl.

Skeletons of whites—Chicago Medical Colleges.

Collected by S. C. Simms :

1 barrel of tiles from Providential Tile Works—Trenton, N. J.

Purchases :

19 crania, *Chinook*—The Dalles, Oregon (purchased from D. M. Averill, Portland, Oregon).

4 glass jars with covers, 1 earthen cinerary jar, 1 circular lead box, 1 long bronze urn—Rome (purchased in Rome, Italy, through Edward E. Ayer).

Flint hoe, fifteen inches long, five inches widest part (purchased from Richard M. Boren, Pulaski, Ill.).

Ethnographical specimens—Alaska and Siberia (purchased from Miner W. Bruce).

Collection of bones, pottery, etc.—Wisconsin (purchased from A. E. Chase, Oshkosh, Wis.).

5 skeletons, *Sanitch*—Vancouver Island, B. C. (purchased from James Deans, Victoria, B. C.).

1 calvarium—New Caledonia (purchased from Otto Finsch, Museum Umlauff, Hamburg).

Purchases:

- 1 birch-bark canoe (purchased from Richard Fry, Bonner's Ferry, Idaho).
- Collection of skulls—Peru (purchased from Capt. T. Harris, Panama, Colombia).
- Photographs of individuals and Hopi Indians—Tusayan, Arizona (purchased from G. Wharton James, Pasadena, California).
- 1 stone serpent, *Texcoco*—Valley of Mexico (purchased from E. O. Matthews, Mexico, City of Mexico).
- Flint arrow, spear points and fragments—Great Lakes (purchased from Dr. A. J. Mears, 175 Dearborn street, Chicago, Ill.).
- Collection of skulls—Arkansas and Colorado (purchased from C. W. Riggs, World's Columbian Exposition).
- Ethnographical collection from the South Sea Islands, Africa (purchased from William T. Shepherd, Boston, Mass.).
- 18 copper implements, 6 stone implements—Wisconsin (purchased from Earl Westcott, 230 Thirty-seventh street, Chicago, Ill.).
- 2 skeletons, 5 skulls, sacred pipe outfit and buffalo skull used in sundance (Blackfoot), 14 Blackfoot skulls—Blood and N. Piegan Reserves, (purchased from R. N. Wilson, McLeod, Alberta, Canada).
- Collection of ethnological material from Ovimbundu, Africa (purchased from T. W. Woodside, Freeport, Ill.).
- 1 skull (purchased from Wyman Bros., Chicago, Ill.).
- MOOREHEAD, W. K., Columbus, Ohio.
- 4 skulls, 2 skeletons, etc.—New Mexico.
- RYERSON, M. A., Chicago, Ill.
- 250 pieces of fabrics, velvets, brocades—Florence, Italy.
- THOMPSON, E. H., Yucatan, Merida.
- 2 skulls—Chichen Itza.
- WHEELER, EDMUND, MEXICO, Oswego County, N. Y.
- Spinning wheel.
- YOUNG, JOE A., Bellevue, Iowa.
- Photograph of large stone spear head, $9\frac{1}{4}$ inches long, $5\frac{1}{8}$ inches wide.

DEPARTMENT OF BOTANY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- AYER, EDWARD E., Chicago, Ill.
- 1 section of treated wood—Texas.
- BOTANIC GARDENS, Grenada, British West Indies.
- 2 packets of fruits.
- BOUTLOU, REV. A., Fairmont, W. Va.
- 1 herbarium specimen—W. Va.
- CORNELL UNIVERSITY, Ithaca, N. Y.
- 42 herbarium specimens—Nugusuak Peninsula (exchange).
- FIELD COLUMBIAN MUSEUM.
- Collected by O. C. Farrington, for Department of Botany:
- 4 herbarium specimens—South Dakota.
- 17 herbarium specimens—Bad Lands, S. Dak.
- Collected by C. A. Lockwood, for Department of Botany:
- 20 herbarium specimens—South Dakota.
- Collected by C. F. Millsbaugh, for Department of Botany:
- 152 herbarium specimens—Mackinac Island, Mich.
- 6 herbarium specimens—Lake Superior Region.
- 6 wood specimens—Lake Superior Region.
- 1 bark specimen—Lake Superior Region.
- 1 box of woods—Michigan.



SECTION IN GALLERY OF ECONOMIC BOTANY—BRITISH INDIA—FIELD COLUMBIAN MUSEUM.

Purchases:

- 204 herbarium specimens—Lower California (purchased from A. W. Anthony, Portland, Ore.).
- Complete herbarium of M. S. Bebb, Rockford, Ill. (purchased from the Bebb Estate, Rockford, Ill.).
- 3 cases of plants and fruits—Yucatan (purchased from George F. Gaumer, Izamal, Yucatan).
- 130 herbarium specimens—N. W. Mexico (purchased from Gray herbarium, Harvard University, Cambridge, Mass.).
- 864 herbarium specimens—Durango, Mexico, and vicinity (purchased from Dr. Edward Palmer, Washington, D. C.).
- 153 herbarium specimens—Mexico (purchased from C. G. Pringle, Charlottesville, Va.).
- 373 herbarium specimens—Africa (purchased from Prof. Karl Schumann, Berlin Hof. Museum, Berlin, Germany).

GEORGIA RAILWAY CO., Augusta, Ga.

- 2 miniature bales of cotton.
- 1 box of South Carolina tea.

GRAY HERBARIUM, Harvard University, Cambridge, Mass.

- 1 type of species (loaned for study).
- 605 herbarium specimens (exchange).

HELLER, A. A., Minneapolis, Minn.

- 155 herbarium specimens—Texas (exchange).
- 28 herbarium specimens—New Mexico (exchange).
- 96 herbarium specimens—Sandwich Islands (exchange).

HILL, E. J., Englewood, Ill.

- 13 herbarium specimens, typical crategi and Hill's Oak—Chicago Basin.

KOENIG BOTANICAL MUSEUM, Berlin, Germany.

- 783 herbarium specimens—Argentine (exchange).

LANSING, O. E., Jr., Chicago, Ill.

- 90 herbarium specimens—Lake Michigan Basin.

MACKINTOSH, LAUGHLIN, 5522 Laflin street, Chicago, Ill.

- 2 cakes of brick spawn—Chicago, Ill.
- 1 box of flake spawn—Chicago, Ill.
- 12 button mushrooms—Chicago, Ill.
- 2 fine ripe mushrooms—Chicago, Ill.

MILLSPAUGH, DR. C. F., Field Columbian Museum.

- 21 lithographs of plants (in color).
- 739 mounted plants from his herbarium (exchange).
- 479 mounted plants from his herbarium (exchange).

NORTHWESTERN UNIVERSITY, Evanston, Ill.

- 19 herbarium specimens—North Greenland (exchange).
- 9 herbarium specimens—Spitzenbergen (exchange).

PETFORD, C. E., 1243 Adams street, Chicago, Ill.

- 3 economic specimens of cycas circinnate—Trinidad.
- 31 economic plant products (exchange).

POLLOCK, W. M., Morgantown, W. Va.

- 100 herbarium specimens—West Virginia (exchange).

SHEHAN, THOMAS, Clayton, Miss.

- 1 twisted vine—Clayton, Miss.

SHOTTER, S. P. & CO., Savannah, Ga.

- 21 economic products of pine—Georgia.

UNITED STATES NATIONAL MUSEUM, Washington, D. C.

- 127 herbarium specimens—Various localities (exchange).

DEPARTMENT OF GEOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

ALMY, JOHN D., Villa Corona, Durango, Mexico.

8 specimens of crystals of unknown nature, probably a new mineral species.

ATCHISON, TOPEKA & SANTA FE R. R., Chicago.

4 specimens of waxy yellow Calcite.

2 specimens of very coarse Horneblende granite.

1 specimen of ferruginous sandstone.

1 specimen of white sandstone.

AYER, EDWARD E., Chicago.

2 specimens of copper ore from Leviathan mine, near Flagstaff, Ariz.

BALDWIN, EVELYN B., Centralia, Ill.

1 specimen of gypsum—Mammoth Cave.

44 specimens of stalactites and 7 specimens of gypsum incrustations—Wyandotte Cave.

2 large specimens of stalactites—Marengo Cave.

BALL, SYDNEY H., Oak Park, Ill.

Bones of Oreodon, Mesoshippus and other Tertiary vertebrates (loan).

BARBOUR, PROF. E. H., Lincoln, Neb.

6 specimens of Chalcedony geodes.

2 specimens of Amber Barite.

1 lot of small Barite crystals.

BRESKE, F., 273 Stark street, Portland, Ore.

5 specimens of zinc ore, gangue and country rock—Venus mine, Oregon.

1 specimen of copper ore—May Day mine, Oregon.

BRUCE, CLARK, Chicago.

1 specimen of tetrahedrite—Batcheller mine, Ouray, Col.

1 specimen of gold ore—Treadwell mine, Alaska.

1 specimen of gold ore—Rio Grande County, Col.

3 specimens of silver-lead ore—Silver City, Ark.

CASE SCHOOL OF APPLIED SCIENCE, Cleveland, Ohio.

24 specimens of Devonian fossils (exchange).

19 specimens of minerals (exchange).

DENNISON, GEORGE W., 5646 Jefferson Ave., Chicago.

1 specimen of Blende in chert—Ashgrove, Mo.

1 specimen of Blende with calamine—Ashgrove, Mo.

1 specimen of Marcasite on Galena—Carterville, Mo.

1 specimen (in two pieces) of Brachiopod in chert—Webb City, Mo.

DOHMEN, U. A., Field Columbian Museum.

1 specimen of native copper with Calcite—Arizona.

8 specimens of copper, gold and silver-lead ores—Colorado and vicinity.

4 specimens of fossils.

4 specimens of minerals.

1 specimen of mercury ore.

DYCHE, MRS. E. F., 2216 Prairie Ave., Chicago.

67 specimens of ores and minerals—San Juan, Colorado, and other localities.

ELLIS, J. W., Maquoketa, Iowa.

11 specimens of fossils—Maquoketa Shale (exchange).

FIELD COLUMBIAN MUSEUM.

Collected by George A. Dorsey:

3 specimens of Analcite—Queen Charlotte Islands.

Collected by O. C. Farrington:

3 specimens of rocks of White River beds.

4 specimens of rocks of dike and veins—Bad Lands, S. D.

3 specimens of mammal bones.

30 specimens of mastodon bones.

Collected by O. C. Farrington :

2 specimens of weathered limestone.

4 specimens of Trenton fossils.

115 specimens of gold ore, gypsum, lignite, building stones, minerals, fossil leaves, brachiopods, corals and miscellaneous specimens—Black Hills, S. D., and Buffalo, Wyo.

143 specimens of golden Calcite with Barite, Calcite crystals, Geodes, Baculites, Scaphites, etc.

Collected by O. C. Farrington and H. W. Nichols :

15 specimens, series of beach pebbles—Chicago.

Collected by O. C. Farrington and E. S. Riggs :

About 250 specimens of Vertebrate fossils—Bad Lands, S. D.

Collected by H. W. Nichols :

9 specimens of brick clay, slags, soils, etc.

Large group of Octahedral, Galena and Sphalerite.

Large group of crystallized Calcite.

53 specimens of zinc and lead ores with their associated minerals.

119 specimens of zinc and lead ores and associated minerals of Joplin, Mo., and vicinity.

12 specimens of raw, treated and burned clays.

9 specimens of sub-carboniferous fossils.

1 specimen of spherical siliceous concretion.

Purchases :

2 specimens of Rhodochrosite (purchased from Maynard Bixby, Salt Lake City, Utah).

11 casts of meteorites (purchased from D. Brucciani & Co., 40 Russell street, London, England).

5 mineral specimens, Amber Aphrosiderite, Quartz and Amethyst (purchased from Lydia A. Dexter, 2920 Calumet Ave., Chicago).

1 petrified egg (purchased from Kelley Robinson, Dakota City, S. D.).

Full-sized section of Sacramento Mts. meteorite, weight 2,330 grammes (purchased from A. E. Foote, 1317 Arch St., Philadelphia Pa.).

22 specimens of carboniferous fossils, ferns and calamites (purchased from John Keay, 6009 La Salle St., Chicago).

1 specimen of Basalt containing native iron—Disco Island, Greenland (purchased from Hugh J. Lee, Meriden, Conn.).

12 specimens of Barite, Smithsonite, Limonite, etc. (purchased from G. W. Taylor, 984 63d St., Chicago).

Head and portion of skeleton of *Elotherium* sp., 1 *Placenticeras* *Placenta*, 18 inches in diameter (purchased from Charles F. Thompson, Plymouth, Ind.).

1 iron meteorite, weight 540 grammes (purchased from H. R. Voth, Keams Cañon, Arizona).

2 sections of Roebourne and Mungindi meteorites (purchased from Henry A. Ward, 620 Division St., Chicago).

Full-sized section of San Angelo (Texas) meteorite, weight 1,501 grammes.

Full-sized section of Tonganoxie (Kansas) meteorite, weight 264 grammes (purchased from Ward's Natural Science Establishment, Rochester, N. Y.).

FITCH, A. B., Magdalena, New Mexico.

Large specimen of Aurichalcite.

FULTON, J. L., Chicago.

2 fragments from thigh bone of Mastodon.

GEORGIA MARBLE CO., Tate, Pickens Co., Ga.

4 polished slabs of varieties of Georgia marbles.

GOODELL, ROBERT WOOD, Houghton, Mich.

1 specimen of petrified fish, *Mioplosus* sp.—Wyoming.

GUION, G. MURRAY, 111 E. 47th St., Chicago.

Block showing chert, bedded with limestone—Joliet, Ill.

HAFER, C. C., 911 W. Adams St., Chicago.

44 specimens of Brachiopods, Gasteropods, Lamellibranchs and Bryozoa from the Trenton Shales, near Lake Street Bridge, Minneapolis, Minn.

- HAMMOND, GEORGE W., Yarmouthville, Me.
181 specimens of clay stones from various localities.
- HARDIN, B., Two Bits, S. D.
2 moonstones (uncut)—Los Angeles, Cal.
1 specimen of native gold ore.
- HARTWELL, GEORGE H., 161 La Salle St., Chicago.
1,200 Briquettes illustrating tests of varieties of brick clay.
- HAYWARD, J. T. Omaha, Neb.
Photographs of Saratoga, Colo.—Gold Mine model.
- HIGINBOTHAM, H. D., Chicago:
1 specimen of Onyx—Nepigon, Canada.
- HIGINBOTHAM COLLECTION, Field Columbian Museum.
1 specimen of jade from Burmah, weighing 1.237 grammes (transferred from Higinbotham Hall).
- HODGSON, E., Pekin, Ill.
1 specimen of gabbro—supposed meteorite (for examination).
- HOGGINS, MRS. JOHN, Oak Park, Ill.
1 *Oreodon* skull (tertiary)—Bad Lands, S. D.
- KEAY, JOHN, 6009 La Salle St., Chicago.
1 Fern showing circinate vernation—Minonk, Woodford Co., Ill.
1 specimen of *Neuropteris* from roof of seam—Westville, Ill.
- KIRKWOOD, R. I., New Denver, B. C.
1 specimen of copper ore—Kootenai District, B. C.
16 specimens of silver-lead ores—Kootenai District, B. C.
- KUNTZE, DR. OTTO, Iowa City, Iowa.
45 specimens of minerals and fossils (exchange).
- LESTER, F. M., 3845 Calumet Ave., Chicago.
9 specimens of siliceous gold ores—Lawrence Co., South Dakota.
- LOWE, CHARLES E., Mt. Crescent House, Randolph, N. H.
1 specimen of yellow Beryl in Granite, Mt. Crescent, N. H.
- MAXSON, COL. H. B., Reno, Nev.
1 specimen of Cinnabar—Reno, Nev.
1 specimen of Sulphur—Humboldt, Nev.
1 specimen of Infusorial earth—Carson City, Nev.
1 specimen of mineral soap—Elks County, Nevada.
1 specimen of plumbago—Battle Mt., Nev.
- MOORE, JOSEPH, Earlham College, Richmond, Ind.
1 specimen of pyrite and quartz (for examination).
- MORTON, JOHN P. & CO., Louisville, Ky.
Map of Mammoth Cave.
- MYERS, J. M. T., Fort Madison, Iowa.
71 specimens of Crinoids, Brachiopods, Bryozoans, etc., of the Keokuk and Burlington groups; 2 Calcite Geodes (exchange).
- NASHVILLE, CHATTANOOGA & ST. LOUIS R. R.
29 specimens of phosphates, iron ores, gold ores and cements—Georgia and Tennessee.
26 specimens of Tennessee phosphates and iron ores.
- PEARSON, WILLIAM R., Goldsboro, N. C.
7 specimens of *Pentamerus Oblongus*—Lyons, Iowa.
- RANDALL, B. G., 4625 Ellis avenue, Chicago.
1 specimen of Calcite and Sphalerite—Joplin, Mo.
- REESE, LEWIS, 1435 State street, Chicago.
Model in relief of the moon (diameter 19.2 feet).
- SISTERS OF PROVIDENCE, St. Mary's, Vigo county, Indiana.
1 quartz and calcite geode (diameter 12 inches).
- SLOCUM, A. W., Milwaukee, Wis.
44 specimens (12 species) of Devonian fossils (exchange).

STANDARD OIL COMPANY, Chicago.

- 2 specimens of machine and elaine oils.
- 312 specimens of candles.
- 225 spun brass candle-holders.
- 264 paraffine candles.
- 8 fine white candles.

STILES, V. H., 595 East 65th street, Chicago.

- 1 granite pebble, enclosed in magnesian limestone (cotton rock), from the Ozark, near contact of sub-carboniferous—Bolivar, Mo.

STILLWELL, L. W., Deadwood, South Dakota.

- 10 specimens of minerals (exchange).
- 1 specimen of Strophomena (exchange).

STRONG, HENRY, 278 West Madison street, Chicago.

- Trap showing fissure produced by weathering.

SVEGE, A. E. J., Field Columbian Museum.

- 1 meteorite—Estherville, Emmet county, Iowa.

WARD, HENRY A., 620 Division street, Chicago.

- 1 specimen of Arlington (Minn.) meteorite, weight 70 grammes (exchange).

WEARE, W. W., Old Colony building, Chicago.

- 1 specimen of jade—St. Michaels, Alaska.

WILLISTON, PROF. S. W., Lawrence, Kan.

- Figures of Kansas Mosasaurs.

WOLFE, J. S., Cedar Rapids, Neb.

- 1 specimen of Brachiopod in Sub-carboniferous limestone—2 miles north of Weaubleau, Mo.

DEPARTMENT OF ORNITHOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

BRANDLER, CHARLES, Field Columbian Museum.

- 1 mounted short-eared owl, *Asio accipitrinus*.
- 2 mounted long-billed marsh wrens, with nest.
- 9 wading birds—Mud Lake, Chicago.

BRYAN, WILLIAM A., Field Columbian Museum.

- 1 short-eared owl, *Asio accipitrinus* (in flesh).
- 1 brant (blue goose)—Rock River Falls, Ind.
- 1 buffle-head duck—Jackson Park, Chicago.

DARRAGH DR. THOMAS, 1011 Tacoma building, Chicago.

- 1 mounted domestic pigeon—Chicago.

FIELD COLUMBIAN MUSEUM.

Collected by William A. Bryan :

- 3 American herring gulls—Jackson Park, Chicago.
- 27 bird skins, Passerim—83rd street, Chicago.

Collected by S. E. Meek :

- 1 mocking-bird—Tampa, Fla.
- 1 Cape May warbler—Tampa, Fla.

Purchases :

- 1 scaup duck (purchased from J. N. Adams, Chicago).
- 2 green-wing teal ducks (purchased from B. Aron & Son, Chicago).
- 1 American golden-eye duck—Illinois (purchased from George Benzenville & Co., Chicago).
- 6 bird skins (purchased from the Chicago market, Chicago).
- 1 blue goose, 1 canvas-back duck (purchased from A. M. Mullin, Chicago).
- 1 gadwall duck—New Boston, Ill. (purchased from Stiffey Brothers, Chicago).

GAUMER, GEORGE F., Izamal, Yucatan.

- 9 bird skins, 1 bird egg—Yucatan.

HARRIS, MRS. JOSEPH, 3112 South Park avenue, Chicago.

1 humming-bird nest.

KANI, SAMUEL W., St. John, N. B.

10 bird skins—Japan.

SAMTER, MANNIE, Knoxville, Iowa.

1 whistling swan—Knoxville, Iowa.

SECTION OF PHOTOGRAPHY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

DEPARTMENT OF ANTHROPOLOGY, Field Columbian Museum.

4 negatives, Ethnological objects.

FIELD COLUMBIAN MUSEUM.

317 negatives, made by Section of Photography, from October 1, 1897, to September 30, 1898, to illustrate lectures, publications, etc.

631 prints, made by Section of Photography, from October 1, 1897, to September 30, 1898.

101 enlargements (on glass and paper), made by Section of Photography, from October 1, 1897, to September 30, 1898.

406 lantern slides, made by Section of Photography, from October 1, 1897, to September 30, 1898.

1,824 negatives of specimens in Museum, used in lectures and to illustrate publications, made by Museum Photographer.

FIELD COLUMBIAN MUSEUM EXPEDITION.

Made by E. P. Allen:

256 negatives, Indian portraits, general views and details—Northwest coast.

Made by George A. Dorsey:

14 negatives, Indian portraits, etc.—Oraibi Village, Arizona.

Made by O. C. Farrington:

13 negatives, views in the "Bad Lands"—Black Hills, S. D.

Made by S. E. Meek:

13 negatives in and around Tampa, Fla.

Made by C. F. Millspaugh:

9 negatives, tree portraits—Mt. Carmel, Ill.

6 negatives, tree portraits—Mississippi.

82 negatives, forestry scenes—Upper Michigan.

Made by H. W. Nichols:

36 negatives, views in zinc and lead mines—Joplin, Mo.

Purchases:

44 lantern slides, illustrating lecture "A Glance at the Leading Types of the Animal Kingdom" (purchased from Frank C. Baker, Chicago).

2 lantern slides (purchased from P. H. Dorsett, Department of Agriculture, Washington, D. C.).

16 lantern slides (purchased from Ben. Haines, New Albany, Ind.).

12 lantern slides (purchased from W. H. Jackson Photo. Co., Denver, Colo.).

6 lantern slides, illustrating "Tour of the Plant World" (purchased from T. H. McAllister & Co., 49 Nassau street, New York, N. Y.).

7 lantern slides (purchased from A. T. Thompson & Co., Boston, Mass.).

GEORGIA R. R. EXHIBIT, Nashville Exposition.

6 photographs of their exhibit at Nashville, 1897.

MILLSPAUGH, DR. C. F.

2 negatives of the great mound at Moundsville, W. Va.

SPECIAL ACCESSIONS.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

AYER, EDWARD E., Chicago.

Primitive wooden plow—Santa Fe, N. M.

Bill of lading of the steamer Majestic from Natchez to St. Louis in 1834.

Receipt of money to apply on stock of the Hudson River Steamboat Co.,
signed by Robert Fulton.

FIELD COLUMBIAN MUSEUM.

Purchases:

Collection of Folk Lore of precious stones (purchased from George F.
Kunz, New York, N. Y.).

DEPARTMENT OF TRANSPORTATION.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

BALDWIN, E. B., Naperville, Ill.

1 old high-frame bicycle.

DRAKE, A. A., St. Thomas, Ontario.

Wooden models of rails, etc., showing method of holding nuts on bolts by
donor's patented process.

MELOY, E. S., Chicago.

1 Chicago & Rock Island R. R. Line pass, dated December 31, 1860.

DEPARTMENT OF ZOOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

ALSTON, G. C., Field Columbian Museum.

1 raccoon.

AMERICAN MUSEUM OF NATURAL HISTORY, New York, N. Y.

1 female buffalo skin and skeleton, 1 skin and skeleton of American buffalo, 4 Greenland seals, 6 walrus, 1 skeleton of Indian antelope, 8 monkeys, 14 carnivore, 6 opossums, 748 rodents and insectivora, skin and bones of calf of American bison (exchange).

ASHBY, J. H., Manager Union Stock Yards, Chicago.

1 skeleton of domestic hog.

1 skeleton of sheep.

AYER, EDWARD E., Chicago.

34 mammal skins, with their skeletons—Madagascar.

BAILEY, G. V., Field Columbian Museum.

1 squirrel, *Spermophile*.

BEBB, Dr. M. S., Rockford, Ill.

Large collection of shells—Illinois and Ohio.

BOSTOCK, FRANK C., Chicago.

1 giant kangaroo.

1 fox.

1 badger, *Coati mundi*.1 lizard, *Gila monster*.1 lizard, *Iguana*.

1 alligator.

BOYER, LEWIS, Fort Bayard, N. M.

1 horned toad, *Phrynosoma cornutum*.

BRAGDON, C. E., 147 Fifth avenue, Chicago, Ill.

1 brown bat.

BRANDLER, CHARLES, Field Columbian Museum.

1 skeleton of setter dog.

BRINKMAN, C., Chicago.

2 alligators.

BRYAN, W. A., New Sharon, Iowa.

1 skeleton of Shetland pony.

CHOPE, E. B., Field Columbian Museum.

184 butterflies and moths hatched in Museum building.

403 butterflies and moths (140 species), 1 bat, 11 shells, 2,180 beetles (variety of species), 265 other insects—Cook Co., Ill.

CITY OF CHICAGO, Chicago, Ill.

1 skeleton of a horse.

DIXON, W. H., 5225 Jefferson avenue, Chicago.

1 skeleton of domestic cat.

3 snakes (2 species), 1 garter snake, 3 snapping turtles.

DODSON, C. E., London, England.

2 photographs of lion.

FARRINGTON, O. C., Field Columbian Museum.

11 beetles—Harrison, So. Dak.

FIELD COLUMBIAN MUSEUM.

Collected by E. B. Chopé, Field Columbian Museum:

1,863 beetles, 12 butterflies (10 species)—La Crosse and Juneau Counties, Wis.

Collected on East African Expedition, by D. G. Elliot:

1 cheetah (young).

Collected by S. E. Meek, Field Columbian Museum:

5 gray squirrels, 45 species of fishes—Greenway, Ark.

32 species of fishes, 3 species of crustaceans—Florida.

3 species of echinoderms, 2 species of shells, 1 snake—Florida.

5 cave salamanders, 1 blind fish—Mitchell, Ind.

31 species of fishes, 1 turtle—Salt Creek, Clinton, Ill.

6 species of turtles, 48 species of fishes—Havana, Ill.

5 bats, 2 mice, 1 snake, 1 salamander, 6 frogs—Caves near Mitchell, Ind.

57 beetles—Paw Paw, Mo.

Purchases:

40 species of fishes—Lower California (purchased from A. W. Anthony, Portland, Ore.).

2 skeletons of apteryx mantelli, the "Kiwi" (purchased from O. Spanner & Co., Toronto, Can.).

2 fur seals (purchased from the Stanford University, Palo Alto, Cal.).

35 rodents, 2 carnivores, 3 gray squirrels, 13 mammal skins, 39 mammal skins (squirrels), (purchased from Thaddeus Surber, White Sulphur Springs, W. Va.).

23 specimens of rodents (purchased from E. S. Thompson, 141 Fifth avenue, New York, N. Y.).

1 water buck, skin and skull (purchased from Rowland Ward & Co., London, England).

Collection of pearl-bearing mollusks (purchased from Mrs. E. C. Wiswall, Kenosha, Wis.).

GAUMER, DR. G. F., Izamal, Yucatan.

3 frogs, 2 snakes, 2 lizards, 1 toad, 1 small box of insects, 11 shells, 4 small mammals—Izamal, Yucatan.

HANLEY, PATRICK, 5529 La Salle street, Chicago.

1 salamander—Jackson Park, Chicago.

HAINES, MRS. FLORA, Boston, Mass.

1 abalone, *Haliotis rubescens* (exchange).

HENION & HUBBELL, 61-69 N. Jefferson street, Chicago, Ill.

1 centipede.

HUME, JAMES, Field Columbian Museum.

1 dogfish—Lagoon, Jackson Park, Chicago.

- KENKEL, LOUIS, 140 Fifty-fourth street, Chicago.
 9 salamanders.
 1 shrew.
 1 mouse.
 3 frogs.
- LAWRENCE, W. J., Chicago.
 4 carpet shells, *Tapes staminea*.
- MEARNS, E. A., United States Army, Fort Clark, Kinney Co., Texas.
 17 species of land and fresh-water shells.
- MEEK, HIRAM, Hicksville, Ohio.
 1 woodchuck skin.
 1 chipmunk skin.
 3 red squirrels.
 2 fox squirrels.
 1 minkskin.
- MEEK, S. E., Field Columbian Museum.
 1 hellbender, *Cryptobranchus alleghaniensis*.
- MITCHELL, LUCIAN, Greenway, Ark.
 1 mole, 7 bats—Greenway, Ark.
- NORRIS, PHILLIP, Field Columbian Museum.
 1 turtle—Chicago.
- OGDEN, DR. H. V., Milwaukee, Wis.
 12 species of small fresh-water fish (for examination).
 27 small mammal skins (for examination).
- ROLFS, PROF. P. H., Lake City, Fla.
 1 alligator for skeleton.
- STERT, A., 5649 Cottage Grove avenue, Chicago.
 1 ground squirrel—Uoalde County, Texas.
- THOMPSON, A. J., Field Columbian Museum.
 3 fishes (2 species).
- UNITED STATES NATIONAL MUSEUM, Washington, D. C.
 1 fish, *Cyprinodon mydrus*—Key West.
 1 fish, *Cyprinodon bovinus*—Chihuahua, Mex.
 1 fish, *Cyprinodon riverendi*—Cuba.
- ZOOLOGICAL MUSEUM, OHIO STATE UNIVERSITY, Columbus, Ohio.
 7 fishes, *Etheostoma variatum*—Ohio (exchange).
 3 fishes, *Etheostoma camurum*—Ohio (exchange).
 1 fish, *Leuciscus elongatus*—Ohio (exchange).

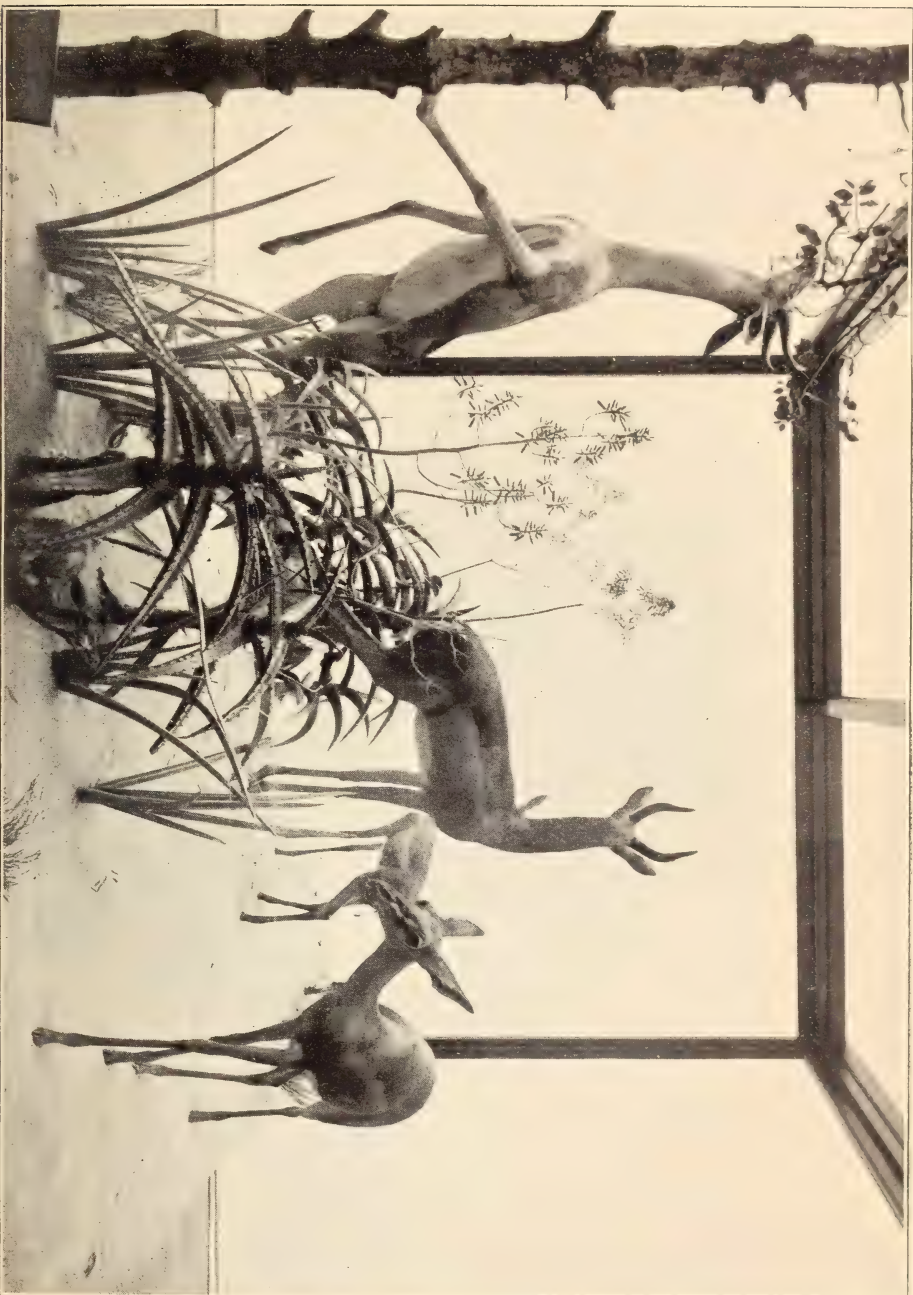
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Books, Pamphlets and Serials.

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Archiv für religionswissenschaft, vol. 1, no. 1.
 Friedrich Ratzel.
- ALABAMA INDUSTRIAL AND SCIENTIFIC SOCIETY, University, Ala.
Proceedings, vol. 7, pt. 2.
- AMERICAN ACADEMY OF ARTS AND SCIENCES, Boston, Mass.
Proceedings, current nos.
- AMERICAN ANTIQUARIAN SOCIETY, Worcester, Mass.
Proceedings, vol. 11, pt. 3, and vol. 12.
- AMERICAN ASSOCIATION FOR THE ADV. OF SCI., Boston, Mass.
 Preliminary announcement of the Boston meeting, 1898.
Proceedings, 46th meeting, 1897.

- AMERICAN FORESTRY ASSOCIATION, Washington, D. C.
The Forester, current nos.
- AMERICAN MUSEUM OF NATURAL HISTORY, New York City.
Annual report, 1897.
Bulletin, vol. 9.
- AMERICAN NUMISMATIC AND ARCHÆOL. SOCIETY, New York City.
Proceedings and papers, 39th annual meeting, 1896-'97.
- AMERICAN ORIENTAL SOCIETY, New Haven, Conn.
Journal, vol. 19, pt. 2.
- AMERICAN PHILOSOPHICAL SOCIETY, Philadelphia, Pa.
Proceedings, current nos.
- AMSTERDAM K. AKAD. VAN WETENSCHAPPEN, Amsterdam, Netherlands.
Verhandelingen, 2d section, vols. 1-5.
Verslagen van de zittingen, vols. 1-5.
- AMSTERDAM. UNIVERSITY LIBRARY, Amsterdam, Netherlands.
Collection of 30 university publications.
- ANDOVER THEOLOGICAL SEMINARY, Andover, Mass.
Catalogue, 1897-'98.
- ANDREE, RICHARD, Braunschweig, Germany.
Globus, vols. 72 and 73.
- ANTHROP. INST. OF GREAT BRITAIN & IRELAND, London, England.
Journal, vol. 27, current nos.
- ARIZONA AGRICULTURAL EXP. STATION, Tucson, Arizona.
Bulletin, nos. 27-29.
- ARTHUR, J. C. (the author), La Fayette, Ind.
Movement of protoplasm in coenocytic hyphæ, with 3 other pams.
- ASHMEAD, A. S., New York City.
Racial degeneracy in America: goitre and dwarfing (gift).
- ASIATIC SOCIETY OF BENGAL, Calcutta, Bengal.
Journal, current nos.
Proceedings, current nos.
The Kaçmiraçabdamrta, pt. 1, by Içvara-Kaula.
- ASSOCIATION OF AMERICAN ANATOMISTS, Washington, D. C.
History, constitution, etc.
Proceedings, 5th-9th annual session (gift).
- AUSTRALIAN MUSEUM, Sydney, New South Wales.
Annual report, 1896.
Catalogue of Australian birds, pts. 1 and 2.
Memoirs, vol. 3, pts. 4-6.
Records, vol. 3, nos. 3 and 4.
- BÄCHSTRÖM, HELGE (the author), Stockholm, Sweden.
Vestnåfältet, with 8 pams.
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Notes on radulæ.
The molluscan fauna of western New York.
- BAKER, R. T. (the author), Sydney, New South Wales.
Contributions to a knowledge of the flora of Australia, no. 1, with 4 other pams.
- BAUER, MAX (the author), Marburg, Hesse, Germany.
Beiträge zur geologie der Seyschellen.
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The question of sign language and the utility of signs.
- BELOIT COLLEGE, Beloit, Wis.
Catalogue, 1897-'98.
Semi-centennial anniversary, 1897-'98.
- BERLIN. FRIEDRICH-WILHELM'S-UNIVERSITÄT, Berlin, Germany.
37 inaugural dissertations.



GROUP OF WALLER'S GAZELLES—FIELD COLUMBIAN MUSEUM.

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Jahres-verzeichniss der an den deutschen universitäten erschienenen
schriften, vols. 1-12.
- BERLIN. K. BOTANISCHE GARTEN UND MUSEUM, Berlin, Germany.
Bericht, 1897-'98.
Notizblatt, vol. 2, nos. 10-14.
- BERLIN. K. PREUSSISCHE AKAD. DER WISSENSCHAFTEN, Berlin,
Germany.
Sitzungsberichte, current nos.
- BERLIN. MUSEUM FÜR NATURKUNDE, ZOOL. SAMMLUNG, Berlin,
Germany.
Bericht, 1897-'98.
Mitteilungen, vol. 1, no. 1.
3 pamphlets.
- BERLINER GESELLSCHAFT FÜR ANTHROPOLOGIE, Berlin, Germany.
Zeitschrift für ethnologie, current nos.
- BEYER, G. E. (the author), New Orleans, La.
Contributions on the life histories of certain snakes.
Publications of the Louisiana Historical Society, vol. 2, pt. 1.
- BLACK DIAMOND COMPANY, Chicago.
Black diamond, current nos. (gift).
- BLANCHARD, RUFUS & COMPANY, Chicago.
Discovery and conquest of the Northwest, pt. 1 (gift).
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Returns of the rail-borne trade, 1897-'98.
- BOSTON. MUSEUM OF FINE ARTS, Boston, Mass.
Annual report, 22d.
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- BOSTON. PUBLIC LIBRARY, Boston, Mass.
Annual list of new and important books added, 1896-'97.
Annual report, 46th.
Monthly bulletin of books added, current nos.
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Proceedings, current nos.
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Annual report, 3d.
- BRIDGEPORT PUBLIC LIBRARY, Bridgeport, Conn.
Annual report, 17th.
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The ethnic affinities of the Guetares of Costa Rica, with 3 other pams.
- BRITISH ASSOCIATION, London, W., England.
Report of the 67th meeting, Toronto, 1897.
- BRITISH COLUMBIA. BUREAU OF STATISTICS, Victoria, B. C.
Annual report (18th) of the British Columbia Board of Trade.
British Columbia mining record, vol. 3, nos. 10-12.
Bulletin, no. 2, pt. 1, of the Natural History Society of British Columbia.
Fifth report of the Department of Agriculture.
The Klondike mining district, by W. Ogilvie.

- BRITISH COLUMBIA. BUREAU OF STATISTICS, Victoria, B. C.
 Lecture on the Yukon Gold Fields, by W. Ogilvie.
 Report of the Dairymen's Association, 1896-'97, with 2 other reports.
 Report of the minister of mines, 1897.
 Report of the Vancouver Board of Trade, 1896-'97.
 Seventh report of the British Columbia Fruit Growers' and Horticultural Society, 1898 (gift).
- BRITISH MUSEUM, London, S. W., England.
 "Alert" report, 1884.
 General guide, 1896.
 List of British diatomaceæ, 1859.
 List of cetacea, 1885.
 15 catalogues.
 9 guides.
- BROOKLYN LIBRARY, Brooklyn, N. Y.
 Annual report, 40th.
 Bulletin, no. 36.
- BROWN UNIVERSITY, Providence, R. I.
 Annual report, 1896.
 Catalogue, 1897-'98.
- BROWN, FRANCIS F., Chicago.
 The Dial, current nos. (gift).
- BRUXELLES. ACAD. ROYALE DE BELGIQUE, Bruxelles, Belgium.
 Annuaire, 1898.
 Bulletin, 3d ser., vol. 35, current nos.
- BRUXELLES. MUSÉE ROYAL D'HISTOIRE NATURELLE, Bruxelles, Belgium.
 Guide dans les collections.
- BRUXELLES. SOCIÉTÉ D'ARCHÉOL., Bruxelles, Belgium.
 Annals, vol. 11 and vol. 12, current nos.
- BRUXELLES. SOCIÉTÉ ROYALE LINNÉENNE, Bruxelles, Belgium.
 Bulletin, 23d year, nos. 1-7 and 9.
- BUENOS AIRES. INST. GEOGRAFICO ARGENTINO, Buenos Aires, Argentina.
 Boletín, vol. 18, nos. 4-9.
- BUENOS AIRES. MUSEO NACIONAL, Buenos Aires, Argentina.
 Anales, vol. 5.
 Memorias, 1894-'96.
- BUFFALO PUBLIC LIBRARY, Buffalo, N. Y.
 Finding list, 1897.
 First annual report, 1897.
- BUFFALO SOCIETY OF NATURAL SCIENCES, Buffalo, N. Y.
 Bulletin, vol. 5, no. 5, and vol. 6, no. 1.
- BURT, E. A. (the author), Middleburg, Vt.
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 Aus der italienischen literatur, with 8 other pams.
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- CALCUTTA. ROYAL BOTANIC GARDEN, Calcutta, India.
 Annual report of the Government Cinchona Plantation in Sikkim, 1896-'97.
- CALIFORNIA ACADEMY OF SCIENCES, San Francisco, Cal.
 Proceedings, current nos.
- CALIFORNIA AGRICULTURAL EXP. STATION, Berkeley, Cal.
 Bulletin, nos. 120 and 121.
 Partial report of work for the years 1895-'96 and 1896-'97 (gift).

- CALIFORNIA UNIVERSITY, Berkeley, Cal.
Annual report, 1897.
Bulletin of the Department of Geology, vol. 2, nos. 3 and 4.
Register, 1896-'97.
University chronicle, vol. 1, nos. 1-3.
1 pamphlet.
- CAMBRIDGE PUBLIC LIBRARY, Cambridge, Mass.
Bulletin, vol. 2, current nos.
- CAMBRIDGE UNIVERSITY, Cambridge, England.
Annual report of the Library Syndicate, 1897.
Annual report (32d) of the Museums and Lecture-Rooms Syndicate.
- CANADA. ROYAL SOCIETY, Ottawa, Canada.
Proceedings and transactions, 2d ser., vol. 2.
- CANADIAN INSTITUTE, Toronto, Canada.
Proceedings, vol. 1, nos. 4 and 5.
Transactions, vols. 1-3, vol. 4, pt. 1, and vol. 5, pt. 2
- CARDOT, JULES (the author), Stenay (Meuse), France.
Repertoire spagnologique, with 1 pam.
- CARNEGIE INSTITUTE, Pittsburgh, Pa.
Catalogue of collection of pictures loaned by R. H. McCormick.
Founder's day, 1897.
Second annual exhibition held at the Carnegie Institute, 1897.
- CARNEGIE LIBRARY, Pittsburgh, Pa.
Annual report, 2d, 1897.
- CARPENTER, GEORGE H., Dublin, Ireland.
The Irish naturalist, current nos.
- CARR, LUCIEN (the author), Cambridge, Mass.
Dress and ornaments of certain American Indians.
- CATHOLIC UNIVERSITY OF AMERICA, Washington, D. C.
Catholic University bulletin, vol. 3, no. 4, and vol. 4, nos. 2 and 3.
Catholic University chronicle, vol 1, nos. 7-12.
- CENTRAL ART ASSOCIATION, Chicago.
Arts for America, current nos. (gift).
- CERAMIC MONTHLY PUBLISHING CO., Chicago.
Ceramic monthly, current nos. (gift).
- CHESTER, A. H. (the author), New Brunswick, N. J.
Catalogue of minerals, 3d ed.
On krennerite from Cripple Creek.
- CHICAGO ACADEMY OF SCIENCES, Chicago.
Annual report, 40th.
- CHICAGO ART INSTITUTE, Chicago.
Annual report, 18th, 1896-'97, and 19th, 1897-'98.
Catalogue of the tenth annual exhibition of oil paintings and sculpture by American artists.
Exhibition of work by Chicago artists, February, 1898.
Second annual exhibition of the Society of Western Artists.
- CHICAGO UNIVERSITY, Chicago.
Annual register, 1896-'97 and 1897-'98.
- CHICAGO HISTORICAL SOCIETY, Chicago.
Report of annual meeting, Nov. 16, 1897.
- CHRISTIANIA UNIVERSITETS BIBLIOTHEK, Christiania, Norway.
Fauna Norvegiae, pt. 1, by G. O. Sars.
Norrønaskaller, by J. Barth.
- CINCINNATI. HOUSE OF REFUGE, Cincinnati, Ohio.
Annual report, 47th.
The proper training of juvenile delinquents, by J. Allison.

- CINCINNATI MUSEUM ASSOCIATION, Cincinnati, Ohio.
 Annual report, 17th, 1897.
 Catalogue of 5th annual exhib. of works by American artists.
 Notes upon an exhibition of paintings, December, 1897.
 Second annual exhibition of the Society of Western Artists.
- CINCINNATI SOCIETY OF NATURAL HISTORY, Cincinnati, Ohio.
 Journal, vol. 19, nos. 3 and 4, with 1 pam.
- CINCINNATI TECHNICAL SCHOOL, Cincinnati, Ohio.
 Annual catalogue, 1896-'97 and 1897-'98.
- CLARKE, ROBERT, Glendale, Ohio.
 Introduction to the study of North American archæology, by C. Thomas.
- CLAUSTHAL. K. BERGAKADEMIE UND BERGSCHULE, Clausthal, Hanover, Germany.
 Katalog der bibliothek.
 Programm, 1898-'99.
- CLAY RECORD PUB. CO., Chicago.
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- COLORADO STATE BUREAU OF MINES, Denver, Colo.
 Report, 1897.
- COLUMBIA UNIVERSITY, New York City.
 Annual report, 8th, 1897.
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 Catalogue, 1897-'98.
- COMBS, ROBERT (the author), Ames, Iowa.
 Alfalfa leaf-spot disease
 Plants collected in the District of Cienfuegos, 1895-'96 (gift).
- CONNECTICUT ACADEMY OF ARTS AND SCIENCES, New Haven, Conn.
 Transactions, vols. 1-7.
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 Annual report, 1897 (gift).
 Bulletin, current nos.
- COOK, O. F., Huntington, N. Y.
 Third report of the New York State Colonization Society.
- COOPER UNION, New York City.
 Annual report, 39th.
- CORNELL COLLEGE, Mt. Vernon, Iowa.
 The Pisgah of the century, by W. F. King.
- CORNELL UNIVERSITY AGRICULTURAL EXP. STATION, Ithaca, N. Y.
 Bulletin, current nos.
- COSTA RICA. MUSEO NACIONAL, San José, Costa Rica.
 Informe, 1897-'98.
- CRANDALL, C. C. (the author), Fort Collins, Colo.
 Natural reforestation on the mountains of northern Colorado.

- CUSHING, F. H. (the author), Washington, D. C.
A preliminary report on the exploration of ancient key-dweller remains on the gulf coast of Florida, with 3 pams.
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Übersicht der akademischen behörden, 1898-'99.
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Catalogue, 1897-'98.
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On the genus lepidophloios.
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Across the Everglades, by H. L. Willoughby.
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Bulletin, current nos. (gift).
- DETROIT MUSEUM OF ART, Detroit, Mich.
Annual report, 1897-'98.
- DETROIT PUBLIC LIBRARY, Detroit, Mich.
Annual report, 33rd.
- DEWALQUE, G., Liège, Belgium.
Mélanges géologiques, ser. 6 and 7.
- DIELS, L. (the author), Berlin, Germany.
Die epharmose der vegetationsorgane bei rhus l. & gerontogeæ Engl. (gift).
- DRESDEN. K. SAMMLUNGEN, Dresden, Germany.
Mitteilungen des mineralogischen Museums.
- DRESDEN. K. ZOOL. UND ANTHROP. ETHNOG. MUSEUM, Dresden, Germany.
Bericht über die königlichen sammlungen, 1894 & '95.
- DREW, S. H. (the author), Wanganui, New Zealand.
Notes on regalecus sp.
- DREW THEOLOGICAL SEMINARY, Madison, N. J.
Report of the library, 1896-'97.
Yearbook, 1897-'98.
- DU BOIS, C. G., Waterbury, Conn.
Asa Gray bulletin, nos. 8, 19, and current nos.
- DUFF, U. F. (the author), San Marcial, New Mexico.
The prehistoric ruins of Rio Tularosa, with 2 other pams.
- EDINBURGH MUSEUM OF SCIENCE AND ART, Edinburgh, Scotland.
Report, 1896.
- EDINBURGH ROYAL SOCIETY, Edinburgh, Scotland.
Proceedings, vol. 21.
- ELECTRICAL ENGINEERING PUB. CO., Chicago.
Electrical engineering, current nos. (gift).
- ELECTRICAL PUBLISHING CO., Chicago.
Western electrician, current nos. (gift).
- ELLIS, J. B., Newfield, N. J.
New species of fungi from various localities, 4 reprints.
- ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA, Allegheny, Pa.
Bulletin, vol. 13, no. 10, and vol. 14, current nos.

ENOCH PRATT FREE LIBRARY, Baltimore, Md.

Annual report, 12th.

Bulletin, vol. 3, current nos.

Finding list, 7th ed.

ESSEX INSTITUTE, Salem, Mass.

Bulletin, current nos.

Historical collections, current nos.

EVANS, A. W. (the author), New Haven, Conn.

A revision of the North American species of *frullania*, a genus of hepaticæ.

EVANSTON FREE PUBLIC LIBRARY, Evanston, Ill.

Annual report, 24th.

FEWKES, J. W. (the author), Washington, D. C.

The winter solstice ceremony at Walpi.

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FISKE, JOHN (the author), Cambridge, Mass.

The American revolution, 2 vols.

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Historic letters (gift).
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Reports on the water supply of the goldfields.
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ARTICLES OF INCORPORATION.

STATE OF ILLINOIS.

DEPARTMENT OF STATE.

WILLIAM H. HINRICHSSEN, *Secretary of State*:

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING :

Whereas, a Certificate duly signed and acknowledged having been filed in the office of the Secretary of State, on the 16th day of September, A. D. 1893, for the organization of the COLUMBIAN MUSEUM OF CHICAGO, under and in accordance with the provisions of "An Act Concerning Corporations," approved April 18, 1872, and in force July 1, 1872, and all acts amendatory thereof, a copy of which certificate is hereto attached.

Now, therefore, I, William H. Hinrichsen, Secretary of State of the State of Illinois, by virtue of the powers and duties vested in me by law, do hereby certify that the said COLUMBIAN MUSEUM OF CHICAGO, is a legally organized Corporation under the laws of this State.

In Testimony Whereof, I hereto set my hand and cause to be affixed the great Seal of State. Done at the City of Springfield, this 16th day of September, in the year of our Lord one thousand eight hundred and ninety-three, and of the Independence of the United States the one hundred and eighteenth.

W. H. HINRICHSSEN,
Secretary of State.

[SEAL]

TO HON. WILLIAM H. HINRICHSSEN,
SECRETARY OF STATE :

SIR :

We, the undersigned citizens of the United States, propose to form a corporation under an act of the General Assembly of the State of Illinois, entitled, "An Act Concerning Corporations," approved April 18, 1872, and all acts amendatory thereof ; and that for the purposes of such organization we hereby state as follows, to wit :

1. The name of such corporation is the "COLUMBIAN MUSEUM OF CHICAGO."

2. The object for which it is formed is for the accumulation and dissemination of knowledge, and the preservation and exhibition of objects illustrating Art, Archeology, Science and History.

3. The management of the aforesaid museum shall be vested in a Board of FIFTEEN (15) TRUSTEES, five of whom are to be elected every year.

4. The following named persons are hereby selected as the Trustees for the first year of its corporate existence :

Ed. E. Ayer, Charles B. Farwell, George E. Adams, George R. Davis, Charles L. Hutchinson, Daniel H. Burnham, John A. Roche, M. C. Bullock, Emil G. Hirsch, James W. Ellsworth, Allison V. Armour, O. F. Aldis, Edwin Walker, John C. Black and Frank W. Gunsaulus.

5. The location of the Museum is in the City of Chicago, County of Cook, and State of Illinois.

(Signed),

George E. Adams, C. B. Farwell, Sidney C. Eastman, F. W. Putnam, Robert McMurdy, Andrew Peterson, L. J. Gage, Charles L. Hutchinson, Ebenezer Buckingham, Andrew McNally, Edward E. Ayer, John M. Clark, Herman H. Kohlsaat, George Schneider, Henry H. Getty, William R. Harper, Franklin H. Head, E. G. Keith, J. Irving Pearce, Azel F. Hatch, Henry Wade Rogers, Thomas B. Bryan, L. Z. Leiter, A. C. Bartlett, A. A. Sprague, A. C. McClurg, James W. Scott, Geo. F. Bissell, John R. Walsh, Chas. Fitzsimons, John A. Roche, E. B. McCagg, Owen F. Aldis, Ferdinand W. Peck, James H. Dole, Joseph Stockton, Edward B. Butler, John McConnell, R. A. Waller, H. C. Chatfield-Taylor, A. Crawford, Wm. Sooy Smith, P. S. Peterson, John C. Black, Jno. J. Mitchell, C. F. Gunther, George R. Davis, Stephen A. Forbes, Robert W. Patterson, Jr., M. C. Bullock, Edwin Walker, Geo. M. Pullman, William E. Curtis, James W. Ellsworth, William E. Hale, Wm. T. Baker, Martin A. Ryerson, Huntington W. Jackson, N. B. Ream, Norman Williams, Melville E. Stone, Bryan Lathrop, Eliphalet W. Blatchford, Philip D. Armour.

STATE OF ILLINOIS, }
COOK COUNTY. } ss.

I, G. R. MITCHELL, a NOTARY PUBLIC in and for said County, do hereby certify that the foregoing petitioners personally appeared before me and acknowledged severally that they signed the foregoing petition as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 14th day of September, 1893.

G. R. MITCHELL,

[Seal]

NOTARY PUBLIC, COOK COUNTY, ILL.

CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the corporate members held the 25th day of June, 1894, the name of the COLUMBIAN MUSEUM was changed to FIELD COLUMBIAN MUSEUM. A certificate to this effect was filed June 26, 1894, in the office of the Secretary of State for Illinois.

FIELD COLUMBIAN MUSEUM.

AMENDED BY-LAWS.

(APRIL 25, 1898.)

ARTICLE I.

MEMBERS.

SECTION 1. Members shall be of five classes, Annual Members, Corporate Members, Life Members, Patrons and Honorary Members.

SEC. 2. Annual Members shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of ten dollars (\$10.00), payable within thirty days after notice of election, and within thirty days after each recurring annual date. The failure of any person to make such initiatory payment and such annual payments within said time shall, at the option of the Board of Trustees, be ground of forfeiture of annual membership.

This said annual membership shall entitle the member to:

First.—Free admittance for himself and family to the Museum on any day.

Second.—Ten tickets every year admitting the bearer to the Museum on pay days.

Third.—A copy of every publication of the Museum sold at the entrance door, and to the annual reports.

Fourth.—Invitations to all receptions, lectures or other entertainments which may be given at the Museum.

SEC. 3. The corporate members shall consist of the persons named in the articles of association, and of such other persons as shall be chosen from time to time by the Board of Trustees at any of its meetings, upon the recommendation of the Executive Committee; provided, that such persons named in the articles of association shall, within ninety days from the adoption of these By-Laws, and persons hereafter chosen as corporate members, shall, within ninety days of their respective election, pay into the treasury the sum of twenty dollars (\$20.00) or more. The failure of any person to make such payments within said time shall, at the option of the Board of Trustees, be ground for forfeiture of his corporate membership. The annual dues of corporate members shall be five dollars (\$5.00) after the first year of membership, and no one shall exercise the rights of a corporate member until his dues are paid; and a delinquency of six months in the payment of annual dues shall be ground for forfeiture of corporate membership. Corporate Members becoming Life Members, Patrons or Honorary Members shall be exempt from dues.

SEC. 4. Any person paying into the treasury the sum of five hundred dollars at any one time shall, upon the unanimous vote of the trustees, become a life member. Life members shall be exempt from all dues.

SEC. 5. Patrons shall be chosen by the Board of Trustees, upon recommendation of the Executive Committee, from among persons who have rendered

eminent service to the Museum. They shall be exempt from all dues, and, by virtue of their election as patrons, shall also be corporate members.

SEC. 6. Honorary members shall be chosen from among persons who have rendered eminent service to science, art or mechanics. They shall be chosen by a vote of the Trustees, and only upon unanimous nomination of the Executive Committee. They shall be exempt from all dues. In commemoration of the 14th day of October, honorary members shall not be more than fourteen in number at any one time.

SEC. 7. All members of whatever class shall be eligible to appointment upon committees other than the Executive Committee.

ARTICLE II.

OFFICERS.

SECTION 1. The respective members of the Board of Trustees now in office, and those who shall hereafter be elected, shall hold office during life. Vacancies occurring in the Board shall be filled by a majority vote of the remaining members of the Board of Trustees at any regular meeting.

SEC. 2. The other officers shall be President, two Vice-Presidents, Secretary and Treasurer, and an Executive Committee of four persons, who shall be chosen by ballot by the Board of Trustees from their own number as early as practicable after the annual meeting in each year. The President shall be *ex-officio* a member of the Executive Committee, in addition to the other four members. The Secretary and Treasurer may, or may not, be the same person, and the Secretary may, or may not, be a corporate member.

Any officer may be removed at any regular meeting of the Board of Trustees by a vote of two-thirds of all the members of the Board. Vacancies in any office may be filled by the Board at any meeting.

SEC. 3. The President shall appoint from among the Trustees a Committee on Finance, a Committee on Property, an Auditing Committee, and a Committee on Buildings and Grounds, who shall serve during the pleasure of the Board.

SEC. 4. The officers shall perform such duties as ordinarily appertain to their respective offices, and such other duties as the Board of Trustees may from time to time devolve upon them. The Treasurer shall give bond in such amount and with such surety as shall be approved by the Executive Committee, and shall disburse the funds of the Museum only in accordance with the directions of the Executive Committee, upon the signature and counter-signature of such officers as the Executive Committee shall empower thereto.

SEC. 5. The Executive Committee shall have full control of the affairs of the Museum, under the general supervision of the Board of Trustees.

ARTICLE III.

MEETINGS.

SECTION 1. In commemoration of the discovery of America by Christopher Columbus, the annual meeting of the corporate members shall be held on the 14th day of October in each year, except when that day falls on a Sunday, and then upon the Monday following. At such meetings the corporate members shall

transact such business as may properly come before the meeting. Special meetings of the corporate members shall be called at any time by the Secretary upon written request of twenty corporate members. In such case, thirty days' notice by mail shall be given to corporate members of the time, place and purpose of such meetings.

SEC. 2. Regular meetings of the Board of Trustees shall be held upon the 14th day of October, except when that day falls on a Sunday, and then upon the Monday following, and upon the last Monday of January, April and July of each year. Special meetings may be called by the President at any time upon reasonable notice by mail, and shall be called upon the written request of three Trustees. Five Trustees shall constitute a quorum.

ARTICLE IV.

AMENDMENTS.

SECTION 1. These By-Laws may be amended at any regular meeting of the Trustees by a two-thirds vote of all the members present, provided the amendment shall have been proposed at the last regular meeting preceding, or shall be recommended by the Executive Committee.

HONORARY MEMBERS.

CHARLES B. CORY.

MARY D. STURGES.

EDWARD E. AYER.

HARLOW N. HIGINBOTHAM.

PATRONS.

ALLISON V. ARMOUR.

FREDERICK J. V. SKIFF.

WILLARD A. SMITH.

WILLIAM I. BUCHANAN.

FREDERICK W. PUTNAM.



HOPÍ HUNTER—ETHNIC GROUP—FIELD COLUMBIAN MUSEUM.

Cast from life and sculptured by F. B. Melville.

CORPORATE MEMBERS.

ADAMS, GEORGE E.
ALDIS, OWEN F.
ARMOUR, ALLISON V.
ARMOUR, PHILIP D.
AYER, EDWARD E.
BAKER, WILLIAM T.
BARTLETT, A. C.
BLACK, JOHN C.
BLAIR, WATSON F.
BLATCHFORD, ELIPHALET W.
BRYAN, THOMAS B.
BUCHANAN, W. I.
BUCKINGHAM, EBENEZER
BURNHAM, DANIEL H.
BUTLER, EDWARD B.
CLARK, JOHN M.
CHALMERS, W. J.
CHATFIELD-TAYLOR, H. C.
CRAWFORD, ANDREW
CURTIS, WILLIAM E.
DAVIS, GEORGE R.
EASTMAN, SYDNEY C.
ELLSWORTH, JAMES W.
FITSIMONS, CHARLES
GAGE, LYMAN J.
GETTY, HENRY H.
GUNSAULUS, FRANK W.
GUNTHER, C. F.
HALE, WILLIAM E.
HARPER, WILLIAM R.
HATCH, AZEL F.
HEAD, FRANKLIN H.

HIGINBOTHAM, H. N.
HUTCHINSON, CHARLES L.
JACKSON, HUNTINGTON W.
JONES, ARTHUR B.
KEITH, E. G.
KOHLSAAT, HERMAN H.
LATHROP, BRYAN
LEITER, L. Z.
McCAGG, E. B.
McCLURG, A. C.
McCONNELL, JOHN
McCORMICK, CYRUS H.
McNALLY, ANDREW
MANIERRE, GEORGE
MITCHELL, JOHN J.
PATTERSON, ROBERT W.
PECK, FERD. W.
PETERSON, ANDREW
PETERSON, P. S.
PEARCE, J. IRVING
REAM, NORMAN B.
RYERSON, MARTIN A.
SCHNEIDER, GEORGE
SKIFF, F. J. V.
STOCKTON, JOSEPH
SMITH, BYRON L.
SMITH, WILLARD A.
SPRAGUE, A. A.
STONE, MELVILLE E.
WALKER, EDWIN
WALLER, R. A.
WALSH, JOHN R.
WILLIAMS, NORMAN

DECEASED.

SCOTT, JAMES W.

BISSELL, GEORGE F.

PULLMAN, GEORGE M.

LIFE MEMBERS.

By the payment of five hundred dollars.

- | | |
|--------------------------|-------------------------|
| ADAMS, GEORGE E. | MCCORMICK, MRS. |
| ALDIS, OWEN F. | MCCORMICK, CYRUS H. |
| ARMOUR, P. D. | MCCORMICK, HAROLD F. |
| BLAIR, CHAUNCEY J. | M McNALLY, ANDREW |
| BARTLETT, A. C. | MACKAY, JOHN W. |
| BARRETT, S. E. | MACVEAGH, FRANKLIN |
| BOOTH, W. VERNON | MITCHELL, J. J. |
| BURNHAM, D. H. | MURDOCH, THOMAS |
| BUTLER, EDWARD B. | |
| CARTER, JAMES S. | NEWELL, A. B. |
| CARTON, L. A. | OGDEN, MRS. FRANCES E. |
| CHALMERS, WILLIAM J. | ORR, ROBERT M. |
| COOPER, FRANK H. | |
| CRANE, R. T. | PEARSONS, D. K. |
| DEERING, CHARLES | PIKE, EUGENE S. |
| DOANE, J. W. | PORTER, GEORGE T. |
| DRAKE, TRACY C. | PORTER, H. H. |
| | PORTER, JR., H. H. |
| FARGO, CHARLES | |
| FARWELL, WALTER | REAM, MRS. CAROLINE P. |
| FAY, C. N. | REAM, NORMAN B. |
| FIELD, STANLEY | RUSSELL, EDMUND A. |
| FULLER, WILLIAM A. | RYERSON, MRS. CARRIE H. |
| | RYERSON, MARTIN A. |
| GARTZ, A. F. | |
| GRISCOM, CLEMENT A. | SCHLESINGER, LEOPOLD |
| GROMMES, JOHN B. | SCHNEIDER, GEORGE |
| | SCOTT, ROBERT S. |
| HAMILL, ERNEST A. | SEAVERN, GEORGE A. |
| HEALY, P. J. | SHERMAN, JOHN B. |
| HIBBARD, W. G. | SINGER, C. G. |
| HILL, LOUIS W. | SMITH, BYRON L. |
| HUGHITT, MARVIN | SMITH, ORSON |
| HUTCHINSON, C. L. | SPRAGUE, A. A. |
| | SPRAGUE, OTHO S. A. |
| INGALLS, M. E. | STUDEBAKER, CLEM. |
| ISHAM, MRS. KATHERINE | STURGES, GEORGE |
| JOHNSON, M. D., FRANK S. | |
| JOHNSON, MRS. ELIZABETH | THORNE, GEORGE R. |
| JONES, ARTHUR B. | TREE, LAMBERT |
| | |
| KEITH, ELBRIDGE G. | WELLING, JOHN C. |
| KIMBALL, W. W. | WELLS, M. D. |
| KING, FRANCIS | WHEELER, GEORGE HENRY |
| KING, JAMES C. | WILLARD, ALONZO J. |
| KIRK, WALTER THOMPSON | WOLFF, LUDWIG |

ANNUAL MEMBERS.

ADAMS, CYRUS H.
ADLER, DANKMAR
ALDRICH, FRED
ADAMS, MILWARD
ALLERTON, ROBERT H.
ALLERTON, MRS. S. W.
AMBERG, WILLIAM A.
ARMOUR, GEORGE A.
ARNOLD, J. B.

BAILEY, EDWARD P.
BAKER, ALFRED L.
BAKER, SAMUEL
BALDWIN, WILLIS M.
BANE, OSCAR F.
BANGA, DR. HENRY
BARNES, CHARLES J.
BARNHART, ARTHUR M.
BARRELL, JAMES
BARRETT, S. E.
BARTLETT, WILLIAM H.
BATCHELLER, W.
BEAUVAIS, E. A.
BECK, CHARLES A.
BECKER, A. G.
BEECHER, MRS. JEROME
BEIDLER, FRANCIS
BELDEN, J. S.
BILLINGS, C. K. G.
BILLINGS, DR. FRANK
BINGHAM, A. E.
BIRKHOFF, JR., GEORGE
BLACKMAN, W. L.
BLACKSTONE, T. B.
BLAINE, MRS. EMMONS
BLAIR, HENRY A.
BLAIR, WILLIAM
BLISS, SAMUEL E.
BOAL, CHARLES T.
BONNEY, CHARLES C.
BOOTH, A.

BORDEN, JAMES U.
BOTSFORD, HENRY
BOUTON, C. B.
BOUTON, N. S.
BRADLEY, CHAS. FREDERICK
BRADWELL, JAMES B.
BRAINERD, E. R.
BRAUN, GEORGE P.
BREGA, CHARLES W.
BREMNER, DAVID F.
BROOKS, JAMES C.
BROWN, GEORGE F.
BROWN, JOHN H.
BROWN, WILLIAM L.
BURLEY, AUGUSTUS H.
BURLEY, CLARENCE A.
BURLEY, FRANK E.
BURNET, WILLIAM H.
BYRAM, A.

CABLE, R. R.
CANNELL, S. WILMER
CARPENTER, A. A.
CARPENTER, MYRON J.
CHANDLER, C. C.
CHANDLER, FRANK R.
CHAPPELL, C. H.
CHENEY, C. C.
CLARK, JONATHAN
CLARKE, CLINTON C.
CLIFF, CAPTAIN JOHN
CLOUD, JOHN W.
COBB, S. B.
COMAN, SEYMOUR
COMSTOCK, WILLIAM C.
CONKLING, ALLEN
CONOVER, CHARLES H.
COOLBAUGH, MRS. ADDIE R.
COOLIDGE, CHARLES A.
COONLEY-WARD, MRS. JOHN C.
CORWITH, CHARLES R.

COWAN, W. P.
COX, ALFRED J.
CRANE, CHARLES R.
CROSBY, WILLIAM HOWARD
CUDAHY, JOHN
CULVER, MRS. CHARLES E.
CUMMINGS, E. A.
CURTIS, D. H.

DAL, M.D., JOHN W.
DARLING, MRS. ADELINE
DAVIS, LEWIS H.
DAY, ALBERT M.
DAY, CHAPIN A.
DEAN, THAD.
DEERING, WILLIAM
DELANO, F. A.
DEMMLER, K.
DICK, A. B.
DILLMAN, L. M.
DODGE, G. E. P.
DUDDLESTON, GEORGE
DUMMER, W. F.
DUNHAM, MISS M. V.
DURAND, ELLIOTT
DURAND, H. C.
DWIGHT, JOHN H.

EDMUNDS, ABRAHAM
EDWARDS, J. A.
EISENDRATH, W. N.
EMMERICH, CHARLES

FAIR, R. M.
FARNSWORTH, GEORGE
FEATHERSTONE, A.
FELSENTHAL, H.
FERGUSON, B. F.
FERGUSON, CHARLES H.
FISCHER, FREDERICK
FISH, STUYVESANT
FISHER, L. G.
FLANNERY, JOHN L.
FLERSHEM, LEM W.
FLOWER, JAMES M.
FOREMAN, EDWIN G.
FOREMAN, OSCAR G.
FORSYTH, ROBERT
FRANK, HENRY L.
FRANK, MAX
FRANKENTHAL, L. E., M.D.

FRASHER, JOHN E. L.
FREER, NATHAN M.
FREYTAG, MORITZ
FULLER, O. F.
FÜRST, CONRAD
GANS, SAMUEL
GATES, J. W.
GAYLORD, FREDERIC
GIBBS, JAMES S.
GIFFORD, C. E.
GIFFORD, I. CUSHMAN
GLESSNER, J. J.
GOODRICH, A. W.
GORDON, EDWARD K.
GORMULLY, R. PHILIP
GREEN, E. H. R.
GREY, CHARLES F.
GREY, WILLIAM L.
GRIFFIN, T. A.
GRISWOLD, E. P.
GROSS, S. E.
GUION, GEORGE MURRAY
GURLEY, W. W.

HAMBLETON, C. J.
HAMILTON, HENRY E.
HAMILTON, I. K.
HANECY, ELBRIDGE
HANSON, DAVID N.
HARBECK, EUGENE
HARDING, AMOS J.
HARRIS, D. J.
HARRIS, GEORGE B.
HARRIS, JOHN F.
HARRIS, N. W.
HASKELL, EREDERICK T.
HEARD, DWIGHT BANCROFT
HEATH, ERNEST W.
HELMER, FRANK A.
HENNING, FRANCIS A., M.D.
HERTLE, LOUIS
HINES, EDWARD
HITCHCOCK, R. M.
HOLDOM, JESSE
HOLT, D. R.
HOLT, GEORGE H.
HOPKINS, JOHN P.
HORNER, ISAAC
HOSKINS, WILLIAM
HOUGHTELING, JAMES L.

HOWLAND, WALTER M.
HUTCHINSON, MRS. B. P.

ILIFF, WILLIAM H.
INGALS, E. FLETCHER
INGALS, EPHRAIM, M. D.
INSULL, SAMUEL
ISHAM, EDWARD S.

JANES, JOHN J.
JEFFERY, THOMAS B.
JENKINS, GEORGE H.
JENKINS, T. R.
JOHNSON, J. M.
JONES, J. S.

KAMMERER, F. G.
KAVANAGH, CHARLES J.
KEEFER, LOUIS
KEENE, JOSEPH
KEEP, ALBERT
KEITH, W. SCOTT
KELLEY, WILLIAM E.
KELLOGG, MRS. C. P.
KENT, THOMAS
KENT, WILLIAM
KIMBALL, EUGENE S.
KIMBALL, GEORGE F.
KIMBALL, MRS. MARK
KIRCHBERGER, S. H.
KLEINE, HENRY
KOEHLER, THOMAS N.

LAFLIN, ALBERT S.
LAFLIN, ARTHUR K.
LAFLIN, GEORGE H.
LAFLIN, LYCURGUS
LAMB, CHARLES A.
LAMB, FRANK H.
LARTZ, W. C. C.
LAWRENCE, EDWARD F.
LAWSON, VICTOR F.
LAY, A. TRACY
LEFENS, THIES J.
LEIGH, EDWARD B.
LEITER, JOSEPH
LEWIS, JAMES F.
LINCOLN, ROBERT T.
LINN, W. R.
LLOYD, EVAN
LOEWENTHAL, B.

LOGAN, F. G.
LOMBARD, JOSIAH L.
LORD, J. B.
LOWDEN, FRANK O.
LOWTHER, THOMAS D.
LOWY, HAIMAN
LYON, GEORGE M.
LYON, THOMAS R.
LYTTON, HENRY C.

McCREA, W. S.
McGUIRE, REV. H.
McLENNAN, J. A.
McWILLIAMS, LAFAYETTE
MACFARLAND, HENRY J.
MAGEE, HENRY W.
MAIR, CHARLES A.
MANSON, WILLIAM
MANSURE, E. L.
MANVEL, MRS. ANNA F.
MARKWALD, LIEUT. ERNST
MARSHALL, GEORGE E.
MATTHIESSEN, C. H.
MAY, FRANK E.
MAYER, DAVID
MAYER, LEVY
MEAD, W. L.
MERRICK, L. C.
MERRYWEATHER, GEORGE
MEYER, MRS. M. A.
MILLER, CHARLES P.
MILLER, JOHN S.
MILLER, ROSWELL
MILLER, THOMAS
MILLER, DR. TRUMAN W.
MIXER, C. H. S.
MOORE, L. T.
MOORE, N. G.
MOORE, SILAS M.
MORISON, GEORGE S.
MORRIS, EDWARD
MORRIS, IRA
MORRIS, NELSON
MORRISON, JAMES W.
MORSE, JAY C.
MOULTON, GEORGE M.
MULLIKEN, A. H.
MULLIKEN, CHARLES H.
MUNRO, WILLIAM
NATHAN, ADOLPH

NELSON, MURRY
NEVIN, W. G.
NOLAN, JOHN H.
NORTON, O. W.
NOYES, LA VERNE W.

OEHNE, THEODORE
ORB, JOHN A.
ORTSEIFEN, ADAM
OSBORN, HENRY A.
OTIS, L. B.

PALMER, MILTON J.
PALMER, PERCIVAL B.
PATTERSON, W. R.
PEARSON, EUGENE H.
PEASE, JAMES
PEASLEY, J. C.
PECK, CLARENCE I.
PECK, GEORGE R.
PECK, MRS. MARY K.
PEEK, W. H.
PETERS, HOMER H.
PETERSEN, GEORGE L.
PETERSON, WILLIAM A.
PETTIBONE, A. G.
PIETSCH, C. F.
PINKERTON, W. A.
POND, IRVING K.
POPE, MRS. CHARLES B.
PORTER, MRS. JULIA F.
PORTER, WASHINGTON
PRUSSING, EUGENE E.

QUICK, JOHN H. S.

RABER, P. W.
RANDALL, THOMAS D.
RAYNER, JAMES B.
REHM, JACOB
REID, W. H.
REW, HENRY C.
RIPLEY, E. P.
ROBINSON, J. K.
ROSENBAUM, JOSEPH
ROSENBERG, JACOB
ROSENFELD, MAURICE
ROSENTHAL, OSCAR
RUMSEY, GEORGE D.
RUNNELLS, J. S.
RYERSON, MRS. MARTIN

SCHAFFNER, JOSEPH
SCHMIDT, GEORGE A.
SCHMIDT, DR. O. L.
SCHMITT, ANTHONY
SCHNEIDER, OTTO C.
SCHWARTZ, G. A.
SCULL, HENRY
SEARS, JOSEPH
SEIPP, MRS. C.
SEIPP, W. C.
SELFRIDGE, HARRY G.
SELLERS, FRANK H.
SELZ, MORRIS
SENN, MRS. N.
SEWELL, BARTON
SHEDD, JOHN G.
SHERWOOD, H. M.
SHIPMAN, DANIEL B.
SHORTALL, JOHN G.
SIMMONS, J. J.
SINGER, A. L.
SKINNER, THE MISSES
SMITH, EDWARD E.
SMITH, F. B.
SMITH, FRANK J.
SMITH, JOHN C.
SMITH, O. C.
SMITH, ROBERT J.
SNOW, MISS HELEN E.
SOMERVILLE, R.
SOPER, ALEXANDER C.
SOPER, JAMES P.
SOUTHWELL, H. E.
SPENCE, MRS. ELIZABETH E.
SPOOR, J. A.
STANLEY, FRANK W.
STEELE, HENRY B.
STILES, JOSIAH
STOCKTON, JOHN T.
STRAUS, SIMON
STRAUSSER, FRANK
STUART, ROBERT
SWIFT, G. F.

TEMPLETON, THOMAS
TILTON, MRS. L. J.
TOBEY, FRANK B.
TRIPP, C. E.
TRUDE, A. S.
TRUMBULL, PERRY

TURBIN, LOUIS M., M.D.
TURNER, E. A.
TURNER, VOLUNTINE C.
TYRRELL, JOHN
TYSON, RUSSELL

UIHLEIN, EDWARD G.
UNZICKER, OTTO

VIERLING, ROBERT

WACKER, CHARLES H.
WAIT, HORATIO L.
WALKER, GEORGE C.
WALKER, HENRY H.
WALKER, JAMES R.
WALKER, WILLIAM B.
WALKER, EDWARD C.
WARNER, EZRA J.
WATSON, A. D.
WATSON, WILLIAM J.
WEBSTER, GEORGE H.
WELLS, B. R.

WHEELER, CHARLES W.
WHEELER, FRANCIS T.
WHITE, A. STAMFORD
WHITEHEAD, W. M.
WHITEHOUSE, FRANCIS M.
WICKES, T. H.
WILLIAMS, SIMEON B.
WILLING, MRS. HENRY J.
WILSON, E. C.
WILSON, GEORGE C.
WILSON, M. H.
WILSON, W. M.
WING, DR. ELBERT
WINK, HENRY
WOLF, FRED. W.
WOOD, JOHN H.
WOOD, S. E.
WOODCOCK, LINDSAY T.
WOOSTER, CLARENCE K.
WRIGHT, THOMAS A.

YERKES, CHARLES T.

DECEASED.

BONFIELD, JOHN

KING, HENRY W.

DE KOVEN, JOHN

PL. XXVII. HINGED SHELF SUPPORT

This bracket allows of the shelf being raised or lowered at will, thus securing such angle as may be desired. For certain installations the bracket is made with a plate on the back for screws; it is then fastened directly to the wall or screen, thereby avoiding the use of wall plate. A narrow strip placed on the top and parallel with the bracket secures one end of the material.

DETAIL OF CASE FRAME TOP.

This case is designed with a view to giving a maximum side light without venting supports and a self-lustrating top. The metal bar shown in plan runs all the way around and across the center, the whole being bolted together. In large cases the bar is of wrought iron one-half inch thick and four inches wide.

VERTICAL SCREEN.

This screen forms either a central partition or a back to a case. The doors are placed on the face. The interior frame is made of 3/4-inch material and both sides are sheeted with 3/4-inch pine; over this is stretched a cover of sign-writing material upon which an epoxy finish is placed. Its adaptability and convenience are unquestioned.

PL. XXVIII. HINGED SHELF SUPPORT.

This bracket admits of the shelf being raised or lowered at will, thus securing such angle as may be desired. For certain installations the bracket is made with a plate on the back for screws; it is then fastened directly to the wall or screen, thereby avoiding the use of wall plate. A narrow strip placed on the top and parallel with the bracket secures one end of the material.

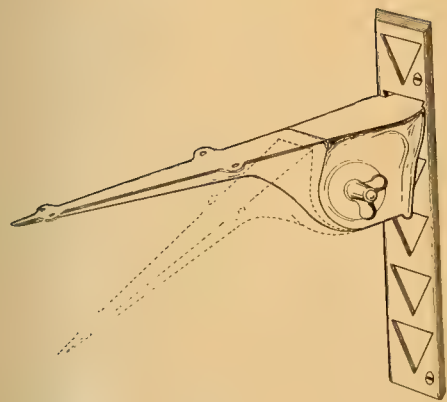
DETAIL OF CASE FRAME TOP.

This case is designed with a view to giving a maximum side light without a center support, and a self-sustaining top. The metal bar shown in plate runs all the way around and across the center, the whole being bolted together. In large cases the bar is of wrought iron one-half inch thick and four inches wide.

VERTICAL SCREEN.

This screen forms either a central partition or a back to a case. The objects are placed on the face. The interior frame is made of $\frac{3}{8}$ -inch material and both sides are sheeted with $\frac{1}{2}$ -inch pine; over this is stretched a cover of sign-writer's muslin upon which an ebony finish is placed. Its adaptability and convenience are unquestioned.

FIELD COLUMBIAN MUSEUM.



SHELF SUPPORT—DETAIL OF CASE FRAME TOP—VERTICAL SCREEN—FIELD COLUMBIAN MUSEUM

REPORTS. PL. XXVIII





MARSHALL FIELD.

FIELD COLUMBIAN MUSEUM

PUBLICATION 42.

REPORT SERIES.

VOL. I, No. 5.

ANNUAL REPORT OF THE DIRECTOR

TO THE
BOARD OF TRUSTEES

FOR THE YEAR 1898-99.



CHICAGO, U. S. A.

October, 1899.

[illegible]

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EDWIN WALKER.

DECEASED.

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MARTIN A. RYERSON, *First Vice-President.*

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STAFF OF THE MUSEUM.

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FREDERICK J. V. SKIFF.

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G. A. DORSEY, *Curator*.

S. C. SIMMS, *Asst. Curator Division of Ethnology*.

DEPARTMENT OF BOTANY.

C. F. MILLSAUGH, *Curator*.

DEPARTMENT OF GEOLOGY.

O. C. FARRINGTON, *Curator*. H. W. NICHOLS, *Assistant Curator*.

ELMER S. RIGGS, *Assistant Curator Paleontology*.

DEPARTMENT OF ZOOLOGY, EXCEPT ORNITHOLOGY.

D. G. ELLIOT, *Curator*.

S. E. MEEK, *Assistant Curator*.

DEPARTMENT OF ORNITHOLOGY.

C. B. CORY, *Curator*.

THE LIBRARY.

J. DIESERUD, *Librarian*.

RECORDER.

D. C. DAVIES.

ANNUAL REPORT OF THE DIRECTOR.

1898-1899.

To the Trustees of the Field Columbian Museum:

I have the honor to present a report of the operations of the Museum for the year closing September 30, 1899. The same careful attention to the details and routine of departmental work has been continued, and the customary regime sustained. A greater amount of new material has been placed on exhibition, and the improvement in the general appearance of the Exhibition Halls has been more noticeable than during any twelve months of which a report has been made. This statement applies almost equally to each department, although to those associated with the Museum it is more apparent in the Departments of Anthropology and Zoology. Few changes have been made in the working staff of the Museum, and those changes have concerned only subordinate positions. The discipline of the Institution has been creditable, its progress has been steady and definite, and it is believed that consideration of the minutiae following will demonstrate the wisdom of the carefully devised plans of the executive committee, and the fidelity with which those plans have been executed.

INCOME AND MAINTENANCE.—The annual budget approved by the executive committee provided the sum of \$102,000.00 for the maintenance of the Museum for the fiscal year. The actual amount expended was \$92,736.25, leaving a balance within the anticipated expenses for the year of \$9,263.75. In addition to the cost of maintenance, sums were expended upon authority of the executive committee, for collections and new installations, expeditions, etc., that brought the total to \$128,936.50. The deficit, as on previous years, has been met by individual contributions and by the further sale of securities. Comparing the expenditures of maintenance this year with those of last year, there is discovered a slight increase in the compensation of departmental assistants, in part balanced by a reduction in that of the general staff and in the lesser amount expended for materials for maintenance and repairs to the building. The difference in the total expenditures for maintenance, comparing

1899 with 1898, was about \$4,000.00 in favor of the previous year. The sum expended in excess of the budget—\$36,000.00 approximately—was exclusively for expeditions, new material, new cases and publications; therefore, with the exception of the cost of the publications, \$1,700.00, the amount expended above the provisions of the budget is represented by Museum material and equipment in value considerably in excess of that amount. The books of the Museum have been compared with the Treasurer's statement and a certificate of agreement issued.

THE MEMBERSHIPS.—There has been a further decrease in the number of annual memberships, mostly by formal resignations, and for reasons in each case that seemed to justify the retirement. This may be expected in greater or less degree each year, so long as no effort is put forth even to hold the membership already obtained.

LECTURE COURSES.—The spring and autumn lecture courses, comprising Course Number Ten, in October and November, 1898, nine lectures, and Course Number Eleven, in March and April, 1899, nine lectures, had the same gratifying attendance that has now become the custom. There have been very few lectures when the demands for admission have not exceeded the capacity of the hall, and in no case has the attendance been unsatisfactory. The offers of participation in the lecture courses by students in the fields represented by the scope of the Museum have been sufficient to present very interesting lists of lectures without taxing the members of the Museum staff, except in one or two instances. Following is the Tenth Lecture Course, with the subject and lecturers :

Oct. 1.—“The Pyramids of Egypt” (Illustrated).

Prof. James H. Breasted, University of Chicago.

Oct. 8.—“Cuba: Its Products and Possibilities” (Illustrated).

Dr. R. S. Martin, Chicago.

Oct. 15.—“Snake Dancers of the United States” (Illustrated).

Mr. G. Wharton James, Pasadena, Cal.

Oct. 22.—“Plants and Their Environment” (Illustrated).

Prof. H. D. Densmore, Beloit College, Wis.

Oct. 29.—“The Moon” (Illustrated).

Prof. E. E. Barnard, Yerkes Observatory.

Nov. 5.—“Japan and the Japanese” (Illustrated).

Mr. Walter C. Nelson, Chicago.

Nov. 12.—“Biology of the Great Lakes” (Illustrated).
Prof. Jacob Reighard, University of Michigan.

Nov. 19.—“The Magic Earth.”
Mr. Edward Kemeys, Bryn Mawr, Ill.

Nov. 26.—“From Columbus to Cervera” (Illustrated).
Prof. Edwin E. Sparks, University of Chicago.

Following is the Eleventh Lecture Course :

March 4.—“Cuba and the Cubans” (Illustrated). Repeated by
request.
Dr. R. S. Martin, Chicago.

March 11.—“Blind Fishes of North American Caves” (Illustrated).
Dr. Carl H. Eigenmann, Director Biological Station,
Bloomington, Ind.

March 18.—“Religious Ceremonies of the Hopi Indians of Arizona”
(Illustrated).
Dr. George A. Dorsey, Curator Department of
Anthropology.

March 25.—“Colors of Flowers and Fruits” (Illustrated).
Prof. W. H. Dudley, Wisconsin State Normal
School.

April 1.—“Russia and the Russians” (Illustrated).
Prof. A. M. Feldman, Armour Institute of Tech-
nology.

April 8.—“The Bad Lands of South Dakota” (Illustrated).
Prof. O. C. Farrington, Curator Department of
Geology.

April 15.—“Extinct Vertebrates of the Bad Lands” (Illustrated).
Mr. E. S. Riggs, Assistant Curator of Paleon-
tology.

April 22.—“Animal Messmates and Parasites” (Illustrated).
Prof. H. M. Kelly, Cornell College, Mount Vernon,
Iowa.

April 29.—“Aboriginal Methods of Manufacturing Weapons and
Implements” (Illustrated).
Prof. George L. Collie, Beloit College, Wis.

There are now on hand 1,667 lantern slides, classified by lectures as follows:

DEPARTMENT.	Total number of Slides.	Number of Illustrated Lectures.
Anthropology,	264 slides.	12
Botany,	492 "	10
Geology,	477 "	14
Zoology,	327 "	14
General,	107 "	3
	<hr/> 1,667 slides.	

PUBLICATIONS.—In typographical appearance and in the character of the illustrations the publications of the museum have been more satisfactory than in any previous year, and the requests for exchange from corresponding institutions and from individuals who publish have been very numerous and from complimentary sources. The following list is presented, giving the titles of publications since the date of the last report, with the number of pages and illustrations:

Pub. 29.—Report Ser., Vol. 1, No. 4. "Annual Report of the Director." 82 pages, edition 2,500, illustrations 13.

Pub. 30.—Zool. Ser., Vol. 1, No. 11. "Preliminary Descriptions of New Rodents from the Olympic Mountains." By D. G. Elliot. 4 pages, edition 1,000, no illustrations.

Pub. 31.—Zool. Ser., Vol. 1, No. 12. "Notes on a Collection of Cold-Blooded Vertebrates from the Olympic Mountains." By S. E. Meek. 12 pages, edition 1,000, no illustrations.

Pub. 32.—Zool. Ser., Vol. 1, No. 13. "Catalogue of Mammals from the Olympic Mountains, Washington, with Descriptions of New Species." By D. G. Elliot. Pages 36, edition 1,000, 49 illustrations.

Pub. 33.—Geol. Ser., Vol. 1, No. 3. "The Ores of Colombia, from Mines in Operation in 1892." By Henry Windsor Nichols. Pages 51, edition 1,000, illustration 1.

Pub. 34.—Geol. Ser., Vol. 1, No. 4. "The Mylagaulidæ: An Extinct Family of Sciurormorph Rodents." By Elmer S. Riggs. Pages 8, edition 1,000, illustrations 2.

Pub. 35.—Geol. Ser., Vol. 1, No. 5. "A Fossil Egg from South Dakota." By Oliver Cummings Farrington. Pages 8, edition 1,000, illustrations 13.

Pub. 36.—Geol. Ser., Vol. 1, No. 6. "Contributions to the Paleontology of the Upper Cretaceous Series." By William Newton Logan. Pages 8, edition 1,000, illustrations 33.

Pub. 37.—Zool. Ser., Vol. 1, No. 14. "Description of Apparently New Species and Sub-Species of Mammals from Oklahoma Territory." By D. G. Elliot. Pages 4, edition 1,000, no illustrations.

Pub. 38.—Zool. Ser., Vol. 1, No. 15. "Description of Apparently New Species and Sub-Species of Mammals from the Indian Territory." By D. G. Elliot. Pages 4, edition 1,000, no illustrations.

Pub. 39.—Bot. Ser., Vol. 1, No. 5. "Higinbothamia, a New Genus, and Other New Dioscoreaceæ." New Amaranthaceæ. By Edwin B. Uline. Pages 10, edition 1,000, no illustrations.

"The Birds of Eastern North America." Water Birds. Part 1. Key to the Families and Species. By Charles B. Cory. Special edition printed for the Field Columbian Museum. 142 pages, edition 1,000.

The last publication in the list, as may be gathered from the description, was not an issue in the regular Ornithological series of the Museum, but its author being a member of the Museum staff, the Institution made arrangements with him to provide its correspondents and subscribers with the publication. No changes have been made in the system of distributing these papers, but an index book has been added for ready reference containing the names of individuals and institutions on the mailing list. The following table presents a record of the disposition of the publications by series:

OFFICIAL:

Trustees	15
Staff	10
Corporate Members	3
Honorary Members	3
Annual Members	450

RECEIVED PUBLICATIONS IN ALL DEPARTMENTS:

	Domestic.	Foreign.
Individuals	8	11
Universities, Schools and Colleges	59	36
Academies and Institutes	29	17
Museums and Gardens	6	33
Societies	20	42
Libraries	56	27
Government and State Departments	8	7
Journals	10	16

RECEIVED PUBLICATIONS IN ONE OR MORE DEPARTMENTS:

	DOMESTIC.							
	A.	B.	G.	H.	I.A.	O.	T.	Z.
Individuals	78	54	96	..	..	10	1	36
Universities, Schools and Colleges	3	28	6	7	2	1	1	36
Museums and Gardens	9	7	5	..	..	..	..	5
Academies and Institutes	3	2	2	1	7	..	2	1
Societies	9	17	12	14	3	5	5	14
Libraries . . . . .	..	2	1	19	..	..	..	1
Government and State Depart- ments . . . . .	..	8	15	4	..	..	..	9
Journals	13	8	6	..	..	2	2	4

	FOREIGN.							
	*A.	B.	G.	H.	I.A.	O.	T.	Z.
Individuals	53	28	53	..	..	4	..	19
Universities, Schools and Colleges . . . . .	..	..	7	..	..	..	..	3
Academies and Institutions	3	..	7	..	..	..	1	..
Museums and Gardens	9	5	5	..	..	1	..	4
Societies	8	8	12	..	..	2	1	19
Libraries	1	..	..	..	..	..	..	..
Government and State Depart- ments . . . . .	..	5	10	..	..	..	..	6
Journals	12	2	6	..	..	3	..	2

The acknowledgment of the courteous assistance of the Bureau of International Exchanges connected with the Smithsonian Institution is renewed. The Fifth Edition of the Guide is nearly exhausted, and arrangements are now in progress for the sixth edition. While, as stated in the report of 1898, this publication has become rather bulky, it does not appear that the time has yet arrived to issue departmental guides, so that room for new material in the forthcoming edition will be made by condensing or omitting the descriptions contained in the current form.

*A., B., G., H., I.A., O., T. and Z. denote Anthropology, Botany, Geology, History, Industrial Arts, Ornithology, Transportation and Zoology.



REGION IN FREEZEOUT MOUNTAINS, WYOMING, WORKED BY WYOMING EXPEDITION OF 1899 FOR FOSSIL REPTILES

LIBRARY:—The library at present contains 9,993 books and 11,175 pamphlets, distributed as follows:

	Books.	Pamphlets
General Library	7,707	8,320
Department of Geology	1,141	2,570
Department of Botany	328	233
Department of Ornithology	368	....
Department of Zoology	236	....
Department of Anthropology	153	50

In this connection it should be mentioned that the greater part of the reference works and reports on anthropology, zoology and botany are kept in the General Library, owing to lack of space in the laboratories. The additions during the fiscal year were 930 books and 1,545 pamphlets and bulletins, making a total of 2,475 titles. Of these only 72 books and 8 pamphlets were added by purchase, and 36 books and 13 pamphlets, by exchange. Consequently the additions by gift and exchange for Museum Publications amount to 2,348 books and pamphlets derived from 574 institutions and individuals. While this is an increase of 16 per cent as compared with the preceding year, it is hardly as good a showing as the extensive mailing list of the Museum would seem to warrant. It is to be hoped that the individuals and institutions on the exchange list will more generously reciprocate during the coming year. Among the gifts, special mention is made of the reproductions of two Mexican codices and two other interesting volumes, from the Duc de Loubat. Mr. George Manierre presented a valuable collection of 19 volumes, referring to the archeology of Egypt, and Mr. D. M. Cummings 38 illustrated works on ancient and modern laces. The literature on the flora of Europe was materially strengthened by a collection of 32 volumes, received from Mr. M. Gaudoger, in exchange for plants. The number of periodicals subscribed for is 55, the number received in exchange or as gift, 51, exclusive of the periodical publications of societies, academies, etc. The work of preparing subject cards for the more important papers in the scientific proceedings, transactions, bulletins, and reports, has progressed steadily, some 4,500 cards having been added during the fiscal year. The cataloguing of this material is a rather ambitious undertaking, and one that most libraries omit, but no extra help being required to accomplish a modest amount of it each year, it is felt that the spare hours of the librarian and his assistant cannot be applied to better advantage. When finished, the Museum is likely to possess one of the most completely catalogued libraries in the country. The shelf list, author, and subject catalogues have been kept strictly up to date, and not a few of the earliest accessions have been re-classified to meet the practical

needs of the Museum. During the year 368 volumes have been sent to the binder, 108 of which are still in his hands. The great amount of dust gathering from the courts and elsewhere makes constant attention to the cleaning of the books indispensable. It is found necessary to remove and clean every volume in the General Library at least once a year. Of the duplicate catalogue of the John Crerar Library, some 5,000 cards have been received during the year and arranged in alphabetical order. The publication of the Union list of periodicals, undertaken by the Chicago Library Club, has been somewhat delayed, but it may be expected to appear some time next winter.

RECORDS.—No changes have been made in the methods of recording material received or distributed, the original system adopted proving eminently satisfactory. The total number of specimens accessioned during the year has been 17,348. The classification of the accessions follows:

	No. of Accessions.	No. of Specimens.
Gifts,	180	4,900
Loans,	1	74
Exchanges,	31	5,831
Collected,	44	5,032
Purchase,	46	3,469
Transfer,	3	42

DEPARTMENTAL CATALOGUING, INVENTORYING AND LABELING.—The departments of the Museum may be said to have reached new material in inventorying and cataloguing, and the new labels have so supplanted the old ones that the latter are noticeable when seen in a case. The system inaugurated in 1897 has proven entirely satisfactory, and the facility with which the history of a specimen may now be obtained greatly lessens the work of cataloguing and writing descriptive labels. There were something more than 12,000 new entries made in the departmental inventories during this year, exceeding any year since the first. In the Department of Geology specially advanced work has been done in providing labels for the mineral collection. These labels show the name of the species exhibited by the specimen, its locality, the catalogue number of the species and the number of the species in Dana's system. The latter serves for reference to the case labels, described in a previous report, which show the chemical composition and system of crystallization of the species and its relation to other species. In connection with this work the specimens labeled have been thoroughly re-identified and any errors found in previous labeling have been corrected. The collections of coals and hydrocarbons, occupying Hall 70, and of non-metallic minerals of use in the arts, occupying Hall 78, have been provided throughout with printed descriptive labels. A complete descriptive label has been provided

for the moon model, and a large chart prepared, showing the name and location of 230 of the principal features of the moon's surface. The work in this important direction is shown in detail as follows:

	No. of Record Books.	Total No. of Entries to Sept. 30, 1899.	Entries during 1898-99.	Total No. of Cards Written.
Anthropology,	28	32,391	15,912	42,291
Botany,	29	69,740	30,405	2,600
Geology,	10	21,925	33,350	6,000
Library,	5	19,489	4,071	7,500
Ornithology,	3	11,069	1,835	....
Photography,	4	4,926	....	....
Zoology,	9	22,502	5,081	10,600

The entry and cataloguing of the Bebb Herbarium having been completed—with the exception of the lower cryptograms—a summarized account of the specimens in the Department of Botany will doubtless be of considerable interest, not only to the trustees of the Museum, but to the botanical world as well. Such summary is as follows:

NORTH AMERICA.

Alaska,	88	Minnesota,	227
Alabama,	193	Missouri,	327
Arizona,	669	Montana,	94
Arkansas,	4	Nova Scotia,	19
British Columbia,	4	New Foundland,	34
Canada,	405	New Brunswick,	262
Connecticut,	148	New Hampshire,	425
Colorado,	993	New York,	2,836
California,	2,542	New Jersey,	753
Delaware,	226	New Mexico,	124
Dist. Columbia,	1,028	Nevada,	11
Dakota,	31	Nebraska,	20
Florida,	2,127	North Carolina,	203
Greenland,	77	Ohio,	34
Georgia,	151	Oregon,	628
Indiana,	37	Pennsylvania,	1,109
Illinois,	4,923	Pacific Coast,	196
Iowa,	499	Pacific Islands,	302
Indian Territory,	31	Rhode Island,	220
Idaho,	385	Rocky Mountains,	747
Kentucky,	196	South Carolina,	172
Kansas,	62	Tennessee,	44
Labrador,	132	Texas,	411
Louisiana,	59	Utah,	152
Maine,	211	Vermont,	137
Massachusetts,	618	Virginia,	146
Maryland,	226	Washington,	485
Mississippi,	947	Wyoming,	47
Mexican Boundary,	1,319	Wisconsin,	262
Michigan,	556	West Virginia,	676

MEXICO.

Mexican States,	3,722	Islands,	186
Yucatan,	3,552	Lower California,	17

WEST INDIES.

Bermudas,	140	Hayti,	3
Barbadoes,	62	Jamaica,	420
Cuba,	874	Porto Rico,	351
Caymans,	260	St. Thomas,	202
Culebras,	90	San Domingo,	118
Grenada,	9	Santa Lucia,	1
Trinidad,	68		

CENTRAL AMERICA.

Costa Rica,	205	Nicaragua,	74
Guatemala,	528	Panama,	535
Honduras,	3		

SOUTH AMERICA.

Argentine,	821	Colombia,	224
Brazil,	1,472	Equador,	535
British Guiana,	141	Peru,	5
Bolivia,	910	Paraguay,	1,063
Chile,	48	Uruguay,	138
Curacao,	111	Venezuela,	593

EUROPE.

Austria-Hungary,	3,458	Russia,	1,645
Wallachia, }		Lapland,	35
Roumania, }	20	Finland,	3
Servia,	126	Poland,	39
Great Britain,	1,044	Germany,	2,371
France,	1,082	Switzerland,	932
Belgium,	44	Italy,	538
Spain,	128	Sicily,	16
Portugal,	28	Sardinia,	1
Canary Islands,	4	Greece,	429
Scandinavia,	644		

ASIA.

Siberia,	343	Corea,	42
China,	49	Asia Minor,	267
Turkestan,	32	Tibet,	312
India,	997	Siam,	189
Johore,	309	Ceylon,	95

AFRICA.

Africa,	2,292
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HOPÍ BRIDE.—STANLEY MCCORMICK EXPEDITION.

Cast from life and sculptured by F. B. Melville.

OCEANICA.

Sandwich Islands,	97	Japan,	581
Formosa,	18	Java,	19
Borneo,	1	Sumatra,	1
Fiji Islands,	1	Philippines,	1
New Caledonia,	261	Samoa,	19
Australia,	529	Tasmania,	195
New Zealand,	8		

HORTICULTURE.

Horticultural specimens,	1,250
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SUMMARY.

North America,	32,383
Mexico,	7,477
West Indies,	2,598
Central America,	1,345
South America,	6,061
Europe,	12,992
Asia,	2,643
Africa,	2,292
Oceanica,	1,731
Horticultural specimens,	1,250
Total specimens,	70,772

ACCESSIONS.—While the gifts to the Museum have not been notable, either in character or number, yet, as a result of expeditions and by taking advantage of unusual opportunities to purchase, the number of entries of new material, omitting the Herbarium purchased late in 1898, is very satisfactory. Among the acquisitions of the Institution of more than ordinary interest may be mentioned the following:

Collection of Papuan skulls, (by gift from R. Parkinson), Archeological series, Canada, (exchange from David Boyle); 380 prehistoric relics of stone and flint from graves, village-sites, etc., Putnam Co., Ohio, (purchase); 200 specimens of ethnological material—Sioux Indians (purchase); 388 specimens of quarry and shop-site material, etc., Peoria, I. T., (collected by George A. Dorsey); 650 specimens of tools, nodules, coves, photographs, etc., illustrating manufacture of gun flints (exchange—Northwestern University); 1,600 specimens of pottery, stones, ceremonial objects, clothing, etc., illustrating the past and the present of the Hopi Indians (gift of Stanley McCormick); 103 specimens of ethnological material from the Cheyennes, Arapahoes and other Indians (purchase); collection of mural decorations on panels and squares from Hadrian's Villa; collection of Korean clothing and uniforms of various ranks, pottery, metal utensils, armor

and implements of warfare, personal ornaments and utensils of carved jade, inlaid boxes, etc. (gift from Mr. H. N. Higinbotham); 2,000 specimens of quarry and shop-site material, refuse, rejects and finished forms, etc., Union Co., Ills., (collected by George A. Dorsey); 466 herbarium specimens (exchange—V. H. Chase); 1,800 herbarium specimens (collected by C. F. Millspaugh on the Allison V. Armour Expedition to the West Indies). The complete herbarium of Mr. H. F. Munroe, of Chicago, presented by himself; Schimck & Smith's Nicaragua ferns; Coombs' Cienfuegos collection; Dr. Lucy's Susquehanna Valley set; Earle's Colorado plants; Heller's Texan species; Bang's Bolivian plants; Tonduz's Costa Rican, Simpson's Floridian, Chase's Illinoisian, Schweinfurth's Abyssinian, and Pringles' and Palmer's Mexican sets; four centuries of Lansing's Lake Michigan plants, and Savage and Stull's Iowa species. 105 specimens of briquettes, burned from brick clays, etc. (gift from J. J. Moroney); 74 specimens of crystallized native copper and calcite (loan—J. M. Stanton); 100 specimens of copper, zinc, silver, and gold ores, stalactites, crystallized copper and galena (gift—Mrs. J. M. Walker); fifteen specimens of antimony ores, 25 specimens of metallurgical products from antimony ores (gift—Mathison & Co.); 556 specimens of Indian fishes, lizards and suckers (exchange—British Museum); 505 specimens of rodents, carnivora and deer (collected—D. G. Elliot); 540 specimens of shells (exchange—C. R. Orcutt); 750 specimens of fishes (exchange—Stanford University); 620 specimens of fishes (gift—United States Fish Commission); one buffalo skin and skeleton and five buffalo skins (purchase); six mammals, mounted (purchase); eight mountain sheep skins, one tiger cat skin, one spotted bushbuck, one eland skin (purchase).

Appended is a table which shows the amount expended on collections and articles purchased during the year for the different departments:

Department of Anthropology,	\$10,235.65
Higinbotham Hall,	900.00
Department of Geology,	233.73
Department of Zoology,	2,496.54
Department of Botany,	831.89
Ornithology,	5.25
Total,	<u>\$14,703.06</u>

EXCHANGES.—The system of exchanging material with other institutions and individuals has been considerably extended during the past year, especially abroad, and a great deal of correspondence has taken place between the curators of the different departments

and their contemporaries that will result in largely increased accessions from this source. Among the institutions with which transactions have been had during the past year may be mentioned the Herbarium Boissier, of Switzerland; the Hope Botanical Gardens, of Jamaica, Kingston; the University of Iowa, Iowa City, Iowa; the Hof Museum at Vienna; the Newark Technical School; the University of Wisconsin; the British Museum; the Indian Museum at Calcutta; the National Museum at Washington; the Leland Stanford, Jr. University, and the Australian Museum, Sydney. The number of specimens sent in exchange during the year was 577, representing 23 different transactions. The number of specimens received in exchange was 5,852, representing 29 transactions.

EXPEDITIONS AND FIELD WORK.—Each department of the Museum has performed valuable work in the field during the year; valuable not alone as a contribution to science, but valuable to the Museum as regards the new material obtained thereby. The following is a list of the expeditions of the Museum since the date of the last report:

Locality.	Collectors.	Material.
West Indies,	C. F. Millspaugh, . . .	Plants.
Pacific Coast,	S. E. Meek,	Fishes, Reptiles, etc.
Southern Illinois,	G. A. Dorsey,	Quarry Shop Material.
Wyoming,	E. S. Riggs,	Fossils.
Winona Lake, Ind.,	S. E. Meek,	Fishes.
Medicine Co., Calif.,	G. A. Dorsey,	Ethnological Material.
Puget Sound,	G. A. Dorsey,	Ethnological Material, Quarry Stones and Casts.
Vancouver Islands,	G. A. Dorsey,	Plaster Casts.

During April of this year, Mr. Dorsey, Curator of the Department of Anthropology, accompanied by Mr. Phillips, of Evanston, visited Mill Creek, Union County, Illinois, and collected a very large number of stone implements and rejects. More recently Mr. Dorsey visited the Pomo Indians of California, and had a most successful trip. From California he went to Tacoma, where he was joined by the modeling force, and casts of Indians of that section, intended to represent the principal aboriginal industries and customs, were obtained. From Tacoma the expedition went to Vancouver Island, for the purpose of taking of several Kwakiutl Indians casts intended for a large ceremonial group illustrating certain phases of religious life. Mr. Millspaugh, Curator of the Department of Botany, was invited by Mr. Allison V. Armour, one of the patrons of the Museum, to map out a cruise of the Antillean Islands calculated to best corre-

late the studies of the Curator in the Flora of Yucatan. The itinerary was made to include Bermuda; San Juan, Caguas, Ponce and Guaniça, Porto Rico; St. Thomas, Culebras Islands, San Domingo, Jamaica, Santiago, Cayman Brac, Grand Cayman, Isle of Pines, Cozumel, Yucatan and the Alacran Shoals. Nearly 2,000 sheets of plants were secured and about 500 negatives were obtained by the photographer who accompanied the expedition. A great many notes were taken. A full report of this trip of three months is now in course of publication in the Museum series. Upon the invitation of Mr. Edward E. Ayer, Mr. Millspaugh also made a short trip to Flagstaff, Arizona, and the Cañon of the Colorado River. Although the excursion was a hurried one, a large number of interesting specimens were collected in this region. Under appointment as Honorary Special Agent of the Department of Mines and Metallurgy of the United States Commission to the Paris Exposition of 1900, Assistant Curator Nichols spent about six weeks during the early summer in visiting the zinc and lead mining regions of New Jersey, Pennsylvania, Virginia, Tennessee, Kentucky, Southern Illinois, Missouri, and Kansas. About 300 specimens were thus collected, illustrating the zinc and lead ores of the regions visited, besides many choice specimens of the minerals which accompany the ores. After being exhibited at the Paris Exposition, the collection so obtained will become the property of the Museum, and will form a valuable addition to the economic collections now on hand. During the month of July an invitation was extended by officials of the Union Pacific Railroad to the Curator and assistants to join the Fossil Fields Expedition to Wyoming, then being organized. While appreciating thoroughly the courtesy of this invitation, it was believed that larger results could be secured by spending the time and funds available in work at one locality. Accordingly, Assistant Curator Riggs, and H. W. Menke as photographer and general assistant, were dispatched to a field near Medicine Bow, Wyoming, where three months were devoted to collecting fossil reptile remains in the Jurassic beds of that region. While it is yet too early to judge accurately of the material obtained, there is no doubt that the results will be highly satisfactory and that much has been secured along a line hitherto entirely unrepresented in the Museum. About five tons of bones in the matrix have been shipped, and a list received from Mr. Riggs quotes the following among the material collected:

Femur, tibia, scapula, coracoids, caudal, dorsal and cervical vertebræ, ilium and ischium of *Brontosaurus*; femur, scapula, cervical, dorsal, and caudal vertebræ of *Morosaurus*; femur, scapula, pubis, 25



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QUARRY 6—FREEZEOUT MOUNTAINS, WYOMING—WORKED BY WYOMING EXPEDITION OF 1899—FIELD COLUMBIAN MUSEUM.

caudal vertebræ, and eight ribs of *Diplodocus*; ilium, ischium, femur, and metapodils of *Creosaurus*; and tibia and fibula of *Camptosaurus*. Many of these remains illustrate the great size attained by these ancient reptiles. Thus the *Morosaurus* femur obtained is five and one-fourth feet in length, the scapula and coracoid are five and one-half feet in length and have a weight of 400 lbs., and the centra of the caudal vertebræ of *Brontosaurus* have a diameter of thirteen inches. Besides the above, several species of Jurassic invertebrates were collected and about six dozen negatives, showing quarry views, stratigraphy and land sculpture of the region were made by Mr. Menke. Through the courtesy of the officials of the Atchison, Topeka & Santa Fe Railway, opportunity was given Mr. W. N. Logan to make a special collection of fossils of the Fort Benton beds of Central Kansas for the Museum. He spent about a month in the field and secured about 200 specimens of the fossil invertebrates and septaria which characterize those beds. Mr. Surber, the regular collector in the Department of Zoology, has done effective work in Oklahoma Territory. Mr. Elliot, the Curator of the Department, accompanied the Harri-man expedition to the Northwest as an invited guest, but not specially as the representative of the Museum. He, however, obtained several valuable specimens and will undoubtedly make notable contributions to the literature of natural history. Mr. Meek, the assistant curator in the Department of Zoology, was quite successful in an expedition to California, and on the occasion of visits to adjacent biological stations.

INSTALLATION, REARRANGEMENT, AND PERMANENT IMPROVEMENT.—

Among the permanent improvements in and about the Museum, and in addition to the work involved in re-installation, may be mentioned the construction of a second story to the Taxidermist's shop, 30 by 60 feet in area. The lower floor is now entirely devoted to storage of specimens considered too valuable to be placed in the Jefferson Avenue building. The Laboratories of the Departments of Zoology and of Botany, have also been practically rebuilt and very considerably extended. Repairs to the building itself are a source of constant attention, the care required and the money expended increasing each year. Foundation stones were placed under Rooms 20, 22 and 5. An experiment in whitewashing above the line of the base on the outside of the building has proved so successful as to warrant going over the entire course, and the plaster statuary at the entrance of the building has received needed attention. The work of reinstalling the East Court has been completed this year and it is now devoted exclusively

to material relating to Archæology. The north alcoves are devoted to the Archæology of United States and Canada; the central portion contains Mexican and Central American Archæology, with the exception of those cases at the west end, which illustrate the ancient flint proper, soapstone, and red pipestone quarries of the United States, and at Brandon, England, while the east end cases are devoted to the cliff dwellers and the Pueblo models. The south alcove contains South American Archæology. Every case in the court has not only been re-installed but has been entirely re-classified, several standard cases being used in the installation of the Mexican and South American Archæology. Material relating to the Ethnology of the Eskimo has been re-classified and re-installed in new cases, Hall 10 being devoted to clothing and utensils of domestic use and to two figures (from life) engaged in skin scraping and ivory drilling. Hall 11 contains implements of the chase, stone implements, methods of transportation, and three cases of figures representing a harpoon thrower in a kayak, a girl fishing from the ice, and a group of three figures and several dogs, illustrating the return home of the husband from a successful seal hunt. Ethnological objects heretofore in the East Court and south alcoves have been re-installed in their proper geographical locations. Halls 14 and 15, heretofore containing South American Archæology, have been dismantled and renovated and are now devoted to the Ethnology of Mexico, Central and South America, new cases having been provided. Owing to the demand for additional space for the recently acquired Hopi collection, it was found necessary to move the lately installed cases of British Guiana, Venezuela, and Paraguay material from Hall 16 to Hall 15. The Rev. H. R. Voth, from whom the collection of Hopi material was purchased, is engaged in reproducing certain ceremonial altars of the Hopi Indians to be installed in Hall 16. Already a large portion of the McCormick collection has been installed and labeled in Hall 17. In Edward E. Ayer Hall every case of specimens except those given to the Ethnology of the Northwest Indians, has been subjected to a careful revision, classification and labeling. In Hall 33, devoted to ceramics, a portion of the Higinbotham Korean collection has been temporarily installed; and a part of the same collection has been shown in Hall 4. In the Herbarium of the Department of Botany, where the entire time of the Curator has been spent when not in the field, many improvements have been accomplished and a large amount of installation performed. Additional space for work has been gained from hitherto unavailable floor space. This has been included in the Herbarium rooms in the shape of a stor-

age section and a larger and more complete work-room, to which three tables have been added for the accommodation of specialists and monographists who desire to use the collections for research. The growth of the collections has been so large and the character so excellent that this section of the department now takes high rank as the largest herbarium in the Central United States, while the methods of installation and recording of specimens establishes its usefulness. The labor of arranging the large amount of departmental material for exchange has progressed favorably. Over 5,000 plants have been mounted, poisoned, and installed in the cases, and over 2,000 identified, classified, and prepared for publication. Hall 70, devoted to coals and hydrocarbons, has been entirely rearranged and the collections newly installed. Many of the specimens, especially the larger ones, had not before been cased and were suffering from dust and disintegration. Wall cases, 8 feet high and from 17 to 29 inches deep, have accordingly been provided, and these, with four floor cases, furnish casing for all the specimens. In order to guard against danger from spontaneous combustion, the case containing the larger specimens has been lined at the base with asbestos millboard $\frac{5}{8}$ -inch thick, and the adjoining walls have been covered with two thicknesses of asbestos paper. The interiors of all the cases have also been painted with asbestos paint. Many of the specimens in the form of blocks, 6x6x10 inches in size, have been treated by soaking twenty-four hours in thin shellac in order to prevent disintegration. For exhibiting lump coal or coal in broken fragments, a form of metallic tray was devised which serves admirably for purposes of exhibition. The form (illustrated elsewhere) is that of a deep tray with two sides divergent, cut down in front to a narrow strip the contents giving support to the label. The tray is made of tinned iron, bound at the edges with wire and enameled a drab color outside and white inside. It is believed it will be found admirably adapted for exhibiting other loose substances, such as clays and earthy minerals, in upright cases. To the specimens formerly exhibited in the hall have been added a number of new series recently received by gift or collection or brought from storage, so that the collections now fully illustrate the varieties, origin and uses of coals and mineral hydrocarbons. The collections in Hall 78, devoted to non-metallic minerals of use in the arts, have been entirely rearranged in order to make room for new material and rectify the classification. Four new cases have been added, and the interiors of all the cases have been painted black. Among the new material added are two collections

prepared by Assistant Curator Nichols, illustrating the Le Blanc and ammonia processes for the manufacture of soda and the different products obtained. The graphic method of installation which has been described in a previous report and which has proved most satisfactory in the representation of metallurgical processes, has here been employed as well. Where liquids are exhibited, the cases being flat, a rectangular glass tray, $6 \times 5 \times 1\frac{1}{2}$ inches in size, with a glass cover, has been employed. Specially corrosive or poisonous liquids and gases are exhibited in sealed glass tubes about 1 inch in diameter and 9 inches in length. The collection of mineral paints in Hall 77, which stood in a central case obstructing the passageway, has been removed, with additions, to another part of the hall. A collection of art tiles has also been placed upon the walls of this hall. In Hall 71, devoted to petroleum and its products, the cases have been repainted inside and out, the specimens cleaned and newly installed. The heavy iron label frames and exposed jars, which were liable to cause or to suffer injury, have been removed, and all the material in the hall is now cased. Six large ore specimens in Hall 72 have been provided with individual cases. The valuable series of iron and steel fractures shown in Hall 76, which were beginning to rust, has been carefully cleaned. The cases containing the fractures have been relined and repainted inside and the sashes fitted with jambs of rubber. With the case thus made air-tight, by the use of lime or other drying ingredient it is expected to keep the case interiors dry and thus prevent any further rusting of the fractures. Some other minor changes have been made in the casing in this hall. The interiors of most of the wall cases and part of the floor cases in Hall 79 have been painted white, and a large wall case added to contain the heavy specimens formerly piled along the south wall. About one-third of the cases containing the systematic mineral collection, Hall 63, have been relined, the specimens cleaned and reinstalled. A stack of trays for storage purposes has been placed along the east wall of Hall 75. An aspirator, filter-pump and air-bath have been added to the equipment of the laboratory. The work-room of vertebrate palæontology has been provided with stacks of storage-trays, work-tables and other fittings. New pasteboard trays have been supplied throughout to the palæontological collection in Halls 35, 36 and 59. The old trays, being of inferior quality, had become much faded and soiled. The new style of tray, adopted after some experimenting, was a shallow tray covered with black glazed paper, except where the specimen was



HALL OF COALS AND HYDRO-CARBONS—FIELD COLUMBIAN MUSEUM.

very dark in color, when a tray with white interior was used. For several collections exhibited in upright floor cases in Hall 35, a mount of manila board, three-sixteenths of an inch in thickness, covered with paper of the Museum standard color, with a black ground for the specimen and a ruled space for the label, has been employed. Warping of the mount is guarded against so far as possible by putting cloth between the several layers of board used in its construction. In spite of this precaution, some of the larger mounts have warped slightly, but with this exception the mount seems admirably adapted for the exhibition of small specimens in upright cases. In Halls 35 and 36 the vertebrate fossils collected by the Bad Lands expedition of 1898 have been installed as fast as they were made ready. The specimens now on exhibition include a magnificent skull of *Titanotherium ingens*, being one of the largest and most perfect ever found, six cervical and five dorsal vertebræ of the same individual, a complete skull, but without lower jaws, of *Titanotherium tichoceras*, many miscellaneous bones of *Titanotherium* and skulls of *Mesohippus*, *Leptomeryx*, *Daphœnus* and others. The complete series of forms of *Dæmonelix*, or "Devil's Corkscrew," secured by the same expedition, has also been installed in an individual case. The forms shown are: a spiral with an axis, a rhizome, and turning to the right; a spiral without an axis, without a rhizome, and turning to the right; a spiral without an axis, with a rhizome, and turning to the left; and a spiral without an axis, with a rhizome, and turning to the right. A series illustrating the phyllogeny of *Dæmonelix*, worked out by and received from Prof. E. H. Barbour, has also been installed with the collection, as well as photographs showing the mode of occurrence of the specimens. The work of cleaning and mounting the above-mentioned material occupied Assistant Curator Riggs, with some assistance from H. W. Menke, during the winter and spring months. There was, however, much other material partially cleaned which can be made ready for exhibition in a short time. A complete skeleton of *Dinornis*, which had been on hand since the opening of the Museum, has been provided with an individual case and placed in Hall 35. The series of photographs of the moon received from the Lick and Paris Observatories has been framed and is exhibited in connection with the moon model in Alcove 109, together with a chart of the moon's surface and a complete descriptive label. In the Department of Zoology, the increased space given the offices of the Curator, by enclosing the outside gallery within them, has been utilized to the very best advantage, and although the rooms are still too small, yet work can be carried on with much additional comfort and satisfaction.

Experiments relating to the exhibition of alcoholics, in cases with plate glass fronts, have been made in this department and promise to be successful. The greater part of the conchological collection, about 5,000 sets, is now in process of remounting on cardboard tablets and being re-labeled. The shell collections have been carefully gone over during the year and an index record made for the entire collection. Three groups, wild asses, cheetahs, and striped hyena, have been finished by the Taxidermist and placed on exhibition in the West Court. Sundry single specimens have been added to the systematic collection in Hall 19.

PHOTOGRAPHY AND ILLUSTRATIONS.—Subtracting the three months that the Photographer spent in the West Indies this year, the work in that section shows progress and development. The following table gives the result of the operations performed:

	Negatives.	Prints.	Lantern Slides.	Developments.	Enlargements.
Department A,	106	111	2	..	..
Department B,	3	4	177	9	..
Department G,	1	17	12	..	1
Department Z,	14	10	..	..	..
Publications,	31	53	..	..	18
Lectures,	13	..	62	..	..
For distribution,	3	85	..	..	..
Expeditions,	377	..	..	..	..
Total,	548	280	253	9	19

PRINTING.—The printing office shows good results. Its capacity should be increased, but this would call for more room, which is not available. Additions in a small way, calculated to increase the efficiency of the section, have been made during the year. The following work has been accomplished:

Anthropology,	3,487	18,958
Botany,	374	11,205
Geology,	2,172	730
Zoology,	681	17,097
Ornithology,	353	22,000
Director's office, . . . . .	....	22,534
Library, . . . . .	....	2,750

Many of the descriptive labels were unusually large and tested the ability of the printer and his facilities.

TAXIDERMY.—Much work has been accomplished in this important section during the past year. Three groups, wild asses, cheetahs, and striped hyenas have been finished and placed on exhibition, and three

other groups are well on their way towards completion. Besides these, sundry single specimens, including a wild sheep, an ibex, and a deer have been mounted. The new building has proven very satisfactory and work can now be accomplished with comfort and without the risks and inconvenience that obtained in the previous confined space. The groups executed by Mr. Akeley keep fully up to the high standard of excellence exhibited by those previously produced by him, and place the Museum's possessions in this class of work not equalled by any other institution in this country. In pursuance of the authority of the Executive Committee, needed assistance has been given the taxidermist, and work is constantly proceeding with much more satisfaction with regard to its quantity. A large number of birds have been mounted.

ATTENDANCE.—The total attendance of the year shows a decrease of 942. This, in view of the notably large attendance on several free days, is a surprise, except when it is understood that there was one less Sunday in September, 1899, than there was in 1898, with which the comparison is naturally made. There was an increase in paid attendance over 1898, and a very large increase in attendance of school children as well as of students and of teachers appeared from the records of the days when an admission fee was charged. On other days no discrimination could be made. The following is a list of school classes of 30 pupils or more that visited the Museum during the year just closed :

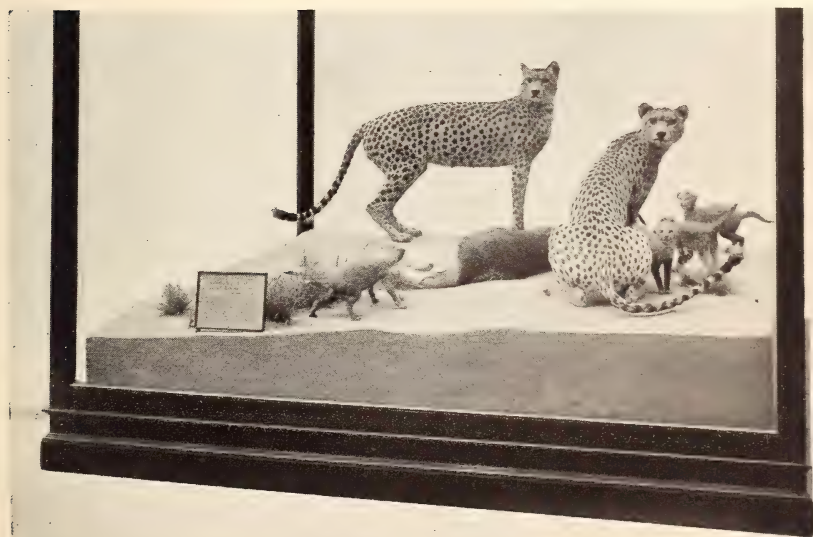
Schools, Chicago—	Teachers.	Pupils.
Normal,	2	42
Carter,	1	33
Farragut,	2	45
Normal,	4	194
Normal,	2	38
S. D. Wentworth,	3	95
Normal,	7	112
Normal,	2	49
Normal, . . . . .	.	72
Normal,	2	67
Smith Branch, Hyde Park High,	2	128
Greenwood Avenue,	1	31
Hyde Park High,	1	105
Normal,	3	150
Sherwood,	2	34
Forestville,	1	35
Hull House Kindergarten,	4	35
Hyde Park High,	1	43

Schools, Chicago—	Teachers.	Pupils.
Normal,	3	90
Oakland,	2	44
Normal,	1	85
Sherwood,	1	40
Garfield,	1	30
English High,	1	70
Charles W. Earle,	2	55
Normal,	1	90
Seward Kindergarten,	4	40
Charles W. Earle,	1	50
Normal,	4	195
Wentworth,	2	105
Wentworth,	2	80
Hawthorne,	2	155
McPherson,	1	44
Hammond,	2	70
Avondale,	4	53
Newberry,	2	70
John M. Smyth,	4	85
Bowmanville,	2	100
Graham,	1	40
Armour Street,	2	50
George Howland,	3	50
Curtis,	2	40
Eighty-third Street,	2	65
Carter H. Harrison,	3	85
Fernwood,	3	40
Eighty-third Street	2	55
Burroughs,	2	70
Howland,	5	50
Curtis,	2	50
Healy,	2	50
Fallon,	2	55
Ravenswood,	2	50
Skinner,	2	50
Herman Raster,	3	100
Newberry,	2	55
Tilden,	4	45
Hammond,	1	60
Gladstone,	1	45
Sherman,	1	90
Von Humboldt,	2	50
Kosciusko,	1	35
University of Chicago,	1	40
Adams Vacation,	3	40
Holy Angels,	2	40

The following comparison between the daily attendance in the



GROUP OF STRIPED HYÆNA—FIELD COLUMBIAN MUSEUM.



GROUP OF CHEETAH, HUNTING LEOPARD—FIELD COLUMBIAN MUSEUM.

year ending September 30, 1898, and the year ending September 30, 1899, is presented :

	Increase.	Decrease.
Total attendance,		942
Paid attendance,	529	. . .
Attendance of school children on pay days, . . .	1,839	. . .
Attendance of students,	714	. . .
Attendance of teachers,	33	. . .
Attendance of members,		204
Average daily attendance, 1898,		614
Average daily attendance, 1899,		611

Herewith are submitted financial statements, analysis of attendance, lists of accessions, names of members, etc., etc.

FREDERICK J. V. SKIFF,
Director.

FINANCIAL STATEMENT.

RECEIPTS AND DISBURSEMENTS

During Year Ending September 30, 1899.

RECEIPTS.

Cash in Treasurer's hands Sept. 30, 1898,	\$ 4,445.70
Petty Cash on hand, Sept. 30, 1898,	739.95
Dues of Members—	
Corporate,	\$ 200.00
Annual,	3,630.00
South Park Commissioners,	15,000.00
Interest on Investments, etc.,	21,589.87
Sundry Receipts,	131.32
C. L. Hutchinson—balance,	2,000.00
Samuel E. Barrett—Special,	1,000.00
Victor F. Lawson—Special,	900.00
Watson F. Blair—Special,	350.00
Norman B. Ream,	2,500.00
Sale of Guides,	358.00
Admissions,	5,192.10
Check Rooms,	1,082.65
Sale of Securities,	79,000.00
	<u>\$138,119.59</u>

DISBURSEMENTS.

Salaries,	\$ 44,228.07
Guard Service,	11,921.53
Janitor Service,	7,320.93
Fire Protection,	2,836.00
Heat and Light—	
Wages of Engineers and Assistants,	\$ 3,174.84
Fuel,	3,917.17
Additions to Plant,	286.46
Supplies,	724.22
	8,102.69
Repairs and Alterations—	
Wages of Carpenters, Painters and Roofers,	8,963.05
Material Used—Paints, Oils, Hardware,	
Glass, Lumber and Plaster,	1,597.86
	10,560.91
<i>Carried Forward,</i>	<u>\$ 84,970.13</u>

Brought Forward, \$84,970.13

Furniture and Fixtures—

Cases and Bases, \$17,317.98
Sundries, 167.70 17,485.68

The Library—

Books and Periodicals Purchased, . . . 482.19
Binding, 222 00
Sundries, 30.10 734.29

Sections of Printing and Photography, 207.41

Collections and Articles Purchased, 14,703.06

Installation Expenses, 3,692.06

General Expense Account—

Freight, Expressage and Teaming, 1,342.19
Stationery, Postage, Telegrams and Tele-
phone, 908.41
Publications, 1,683.64
Expeditions, 2,389.69
Sundries, 819.94 7,143.87

\$128,936.50

Securities Purchased, 7,375.00

In Treasurer's hands Sept. 30, 1899, 1,068.14

Petty Cash on hand Sept. 30, 1899, 739.95 9,183.09

\$138,119.59

ATTENDANCE AND RECEIPTS FOR YEAR ENDING SEPTEMBER 30, 1899.

ATTENDANCE.		Total.
Paid Attendance—		
Adults,	20,316	
Children,	1,131	21,447
Free Admissions on Pay Days—		
School Children,	7,111	
Students,	1,570	
Teachers,	450	
Members—Corporate,	37	
Annual,	411	
Life,	31	
Officers' Families,	37	
Special,	66	
Press,	1	9,714
Admission on Free Days—		
Saturdays,	54,490	
Sundays,	137,653	192,143
Total attendance,		223,304
Highest Attendance on any day, (August 6, 1899),	6,709	
Lowest " " " (Dec. 29, 1898),	5	
Highest Paid " " " (July 4, 1899),	352	
Average Daily Admissions (365 days)	611	
Average Paid Admissions (260 days)	82	

RECEIPTS.

Guides Sold—1,432 at 25 cents each,	\$ 358.00
Articles Checked—21,653 at 5 cents each,	1,082.65
Admissions,	5,192.10
	<u>\$6,632.75</u>



HOPÍ KATCINA MASKS AND HEAD-DRESSES—STANLEY MCCORMICK COLLECTION.

ACCESSIONS.

FROM OCTOBER 1, 1898, TO SEPTEMBER 30, 1899.

DEPARTMENT OF ANTHROPOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- ARMOUR, ALLISON V., Chicago.
7 chiti mocha baskets—Arcadian Parish near New Orleans.
- AYER, EDWARD E., Chicago.
1 greenstone axe—Phoenix, Arizona.
1 redstone axe—Western United States.
18 specimens stone celts, baskets, bowls, head bands, etc.—California and Mexico.
1 large stone metate and nether stone—Walnut Cliff, Arizona.
- AYER, MRS. E. E., Chicago.
4 pieces of blue faience as follows—2 cups, 1 bowl, 1 ring for supporting bowl, 1 head—Egypt.
1 lace cuff—Venice.
- BALDWIN, E. B., Naperville, Ill.
1 Greenland Eskimo skeleton—Greenland.
- BLAIR, WATSON F., Chicago.
1 bronze sitting figure—back to obelisk—22 inches high—Egypt.
1 bronze sitting figure of god with cat's head, 24 inches high—Egypt.
- CEYLON COMMISSION, World's Columbian Exposition.
1 skull of a Veddah—Ceylon.
1 padded stand and cylinder for lace-making.
- DEPARTMENT OF AGRICULTURE, World's Columbian Exposition.
53 specimens enlarged models of silk worms, eggs, etc., showing stages in growth of insect—U. S. A.
31 pieces upholstery goods, dress goods, napkins, laces, etc., made of Ramie fibre.
27 specimens silk cocoons, raw silk, manufactured silk, etc.
- DEPARTMENT OF ETHNOLOGY, World's Columbian Exposition.
1 heddle—linen threads.
1 reed—mesh for beating web.
2 large reels.
2 spinning wheels.
1 flax brake.
1 lace-making device—Maranhao, Brazil.
1 handkerchief of Nanduty lace—Paraguay.
- Collected by W. C. Hamilton:
78 specimens modern pottery—Catawba Indians, South Carolina.
- Collected by W. E. Safford:
2 looms, 2 whorls, 3 bone implements for weaving—Peru and Bolivia.
- DWIGHT, PROF. THOMAS, Boston, Mass.
1 humerus, with supra-condyloid process—(exchange).
- FIELD, MARSHALL & CO., Chicago.
6 specimens manufactured silk from United States, France and Switzerland.

FIELD COLUMBIAN MUSEUM.

Collected by Geo. A. Dorsey :

- 1 Tlingit doctor's skeleton—Old Tongas, Alaska.
- 2000 specimens of quarry and shop site material, refuse, rejects and finished forms, hammer and polishing stones, etc.—Union County, Ill.
- 388 specimens of quarry and shop site material, refuse and rejects, flakes, cores and hammer stones—Peoria Reservation, Indian Territory.
- 1 group of five figures illustrating native industries and house life of the Hopi Indians—Tusayan, Arizona.
- 1 group of two figures illustrating the Ana Katsina Dance of the Hopi Indians—Oraibi, Arizona.
- 1 group of two figures illustrating the Hemis Katsina Dance of the Hopi Indians—Oraibi, Arizona.
- 1 life cast of a Hopi Indian throwing rabbit stick—Oraibi, Arizona.
- 1 group of two figures illustrating the Eskimo bow drill and skin scraper—Alaska.
- 1 life cast of single figure in kayak throwing dart with throwing stick—Alaska.
- 1 life cast of young woman, showing costume of a Hopi Indian bride—Oraibi, Arizona.

Collected by E. H. Thompson :

- 1 incense burner, 1 green painted mortuary vessel (in fragments)—Chichen Itza, Yucatan.

Purchases :

- 4 blue and white cameos of Wedgewood ware.
- 8 bronze objects as follows—2 human figures, 2 plaques, 4 human heads—Benin, Africa.
- 1 Sioux blanket stripe—Black Hills, S. Dakota.
- Collection of Ethnological material from Sioux Reservations.
- 18 flint implements—Jonesboro, Ill.
- 380 specimens prehistoric relics of stone, flint, etc., from graves, village sites, etc.—Ohio.
- 1 rabbit skin robe (woven)—Oraibi, Arizona.
- 3 buckskin aprons, 1 bone cedar bark breaker—Bella Coolla, B. C.
- 103 specimens Ethnological material from the Cheyenne, Arapahoe and other Indians.
- 11 pieces cotton embroideries, doyleys, etc.

Purchased by Edward E. Ayer for the Museum.

Collection of stone, pottery, wood, bronze, etc.—Egypt and Italy.

GATES, W. D., Chicago.

- Collection of small clay heads of animals, birds, etc., stone and clay discs and fragments of incised ornamented pottery—Mobile Bay, Ala.
- 31 fragments of earthenware vessels from shell heaps—Mobile Bay, Ala.

GUATEMALA COMMISSION, World's Columbian Exposition.

Loom with cotton cloth.

HATFIELD, HENRY RAND, Chicago.

- 1 small piece of the first cotton made in the United States by Sam Slater.

HORTON, MRS. JAS., Chicago.

- Korean embroidered bed (presented to Miss Horton, a medical missionary, made by Queen's ladies).

JAPANESE COMMISSION, World's Columbian Exposition.

- Sheath of shuro and rope and door mat made of same—Japan.
- Large porcelain plate 24 inches in diameter, Arita ware—Japan.

McCORMICK, STANLEY, Chicago.

- 1600 specimens pottery, stone, ceremonial objects, clothing, etc., illustrating the past and present of the Hopi Indians—Oraibi, Arizona.

McKERCHER, F. B., Mexico City, Mexico.

- 1 rectangular stone covered with incised inscriptions—Mexico.
- 1 reddish stone idol, 28 inches high—Mexico.

MEXICAN COMMISSION, World's Columbian Exposition.

- 1 small specimen bale of cotton.

- NORTHWESTERN UNIVERSITY, Evanston, Ill.
650 specimens, series of tools, nodules, flakes, cores, photographs, etc., illustrating the manufacture of gun flints—Brandon, England (exchange).
- ONTARIO MUSEUM, Toronto, Canada.
100 specimens Archeological relics—Ontario, Canada (exchange).
- PARKINSON, R., Ralum, Bismarck Archipelago.
52 Papuan skulls—Gazelle Peninsula, New Britain.
- PENDLETON GLASS TUBE WORKS, Pendleton, Ind.
6 specimens of glass castings.
- RAND, McNALLY & CO., Chicago.
5 maps as follows—Europe, Asia, Africa, North America, South America.
Map of Philippine Islands.
Map of Arizona, U. S. A.
Map of Illinois, U. S. A.
- RODDY, T. R., Black River Falls, Wis.
1 hair ornament, beaded—Menominee, Wis.
- RUST, HORATIO N., South Pasadena, Cal.
2 metates, 8 upper mill stones, 6 hammer stones, 3 discoidal stones—Pasadena, Cal.
- RYERSON, M. A., Chicago.
Girdle of feathers (wood peckers'), quills partly striped and dyed red, strung on twine—Ventura, Cal.
1 obsidian ear ornament—Nonoalco, Mexico.
1 fragment of obsidian ear ornament—Nonoalco, Mexico.
- SPRAGUE, T. W., Chicago.
Tappa cloth and mallet used in its manufacture—Hawaii.
- STRACK, CARL, 47 Center Street, Chicago.
Silks, cocoons, etc., pertaining to silk culture.
- U. S. COLOMBIAN COMMISSION, World's Columbian Exposition.
2 poncho looms.
1 belt loom.
1 model of mat weaver.
- WALKER, MRS. J. M., 1720 Prairie Avenue, Chicago.
1 terracotta human head.
1 small stone pipe.
- WITHROW, MRS. THOMAS, 300 Schiller Street, Chicago.
Long water jar and wooden pail—Mexico.
- WOOD, J. L., Laclede, Mo.
1 skull, 1 femur, 1 humerus—Indian burial mounds near Laclede, Linn County, Mo.
- WOMAN'S SILK CULTURE ASSOCIATION OF U. S., World's Columbian Exposition.
Raw silk reeled at World's Columbian Exposition October 28, 1893.
- WORLD'S COLUMBIAN EXPOSITION.
18 pieces of cable and rope of various thicknesses.

DEPARTMENT OF BOTANY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- BOUTLOU, REV. A., Fairmont, W. Va.
6 sheets herbarium specimens—W. Virginia.
6 sheets herbarium specimens—W. Virginia.
- CHASE, AGNES, Chicago.
9 herbarium specimens—Illinois and Indiana.
3 herbarium specimens—River Forest, Ill.
9 herbarium specimens—Illinois.

- CHASE, VIRGINIUS H., Wady Petra, Ill.
466 herbarium specimens—Wady Petra, Ill. (exchange).
- DOHMEN, U. A., Field Columbian Museum.
70 herbarium specimens—Allegan County, Mich.
- FIELD COLUMBIAN MUSEUM.
Collected by Dr. C. F. Millspaugh on Allison V. Armour Expedition:
1,800 herbarium specimens—West Indies.
- Purchases:
635 herbarium specimens—Cuba.
628 herbarium specimens—Colorado.
90 herbarium specimens—Arkansas and Texas.
160 herbarium specimens—Mexico.
907 herbarium specimens—Bolivia.
- HERBARIUM BOISSIER, Chambes, Switzerland.
420 herbarium specimens—Various localities (exchange).
- HILL, PROF. E. J., Englewood, Ill.
2 herbarium specimens—Illinois.
- HOPE BOTANICAL GARDENS, Kingston, Jamaica.
24 herbarium specimens—Jamaica (exchange).
- LANSING, O. E., JR., Field Columbian Museum.
463 herbarium specimens—Lake Michigan Basin.
170 herbarium specimens—Lake Michigan Basin.
- LUCY, DR. T. F., Elmira, N. Y.
786 herbarium specimens—New York (exchange).
- MUNROE, HENRY F., 821 Jackson Boulevard, Chicago.
1,552 herbarium specimens—Various localities.
- ROWLEE, PROF. W. W., Cornell University, Ithaca, N. Y.
2 type sheets willows—Mexico.
- SNYDER, MRS. MARY S., Pacific Beach, Cal.
124 herbarium specimens—Various localities.
- TRACY, S. M., Biloxi, Miss.
1 herbarium specimen—Albany, Georgia.
- UNITED STATES NATIONAL MUSEUM, Washington, D. C.
281 herbarium specimens (exchange).
161 herbarium specimens—Florida, U. S., and Austria (exchange).
- UNIVERSITY OF IOWA, Iowa City, Iowa.
223 herbarium specimens—Missouri (exchange).
5 herbarium specimens—Various localities (exchange).
152 herbarium specimens—Central America (exchange).

DEPARTMENT OF GEOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- ANDERSON, SAMUEL, White Sulphur Springs, Mont.
17 specimens of ores—Montana.
- ASSYRIAN ASPHALT CO., Chicago.
1 block of Assyrian mastic, a product of Wasatch asphalt.
- BAILEY, S. C. H., Oseawana-on-Hudson, N. Y.
4 specimens meteorites—Various localities (exchange).
- BAKER, H. V., Denmark, Iowa.
11 specimens Devonian and Sub-carboniferous fossil plants and brachiopods—Various localities (exchange).
- BANNING, HANCOCK, Santa Catalina Island, Cal.
1 serpentine match safe—California.
1 serpentine polished cup—California.
1 serpentine unpolished cup—California.
1 serpentine box with cover—California.

BARBOUR, PROF. E. H., Lincoln, Neb.

20 specimens showing structure and probable early forms of *Damonelix*—South Dakota and Nebraska.

50 specimens, including *Inoceramus*, concretions, golden calcite, faulted sandstone, laminated limestone, dendrite, etc.—South Dakota and Nebraska.

BUTTS, MRS. P. D., 340 Fifty-seventh street, Chicago.

1 specimen Chlorastrolite (cut stone)—Isle Royal, Lake Superior.

CALDWELL, DR. CHAS., Chicago.

1 specimen Oligoclase—Minnesota.

CAMBRIDGE TILE MANUFACTURING CO., Covington, Ky.

32 specimens art tiles.

CANADIAN PEAT FUEL CO., Toronto, Ont.

10 specimens of peat and its products—Welland bog, Welland, Ont.

CARR, J. C., Morris, Ill.

48 specimens, representing 45 species of Carboniferous fossil plants—Mazon Creek, Grundy Co., Ill.

CHICAGO ACADEMY OF SCIENCES, Lincoln Park, Chicago.

26 specimens fossils—Illinois and British Columbia (exchange).

CHICAGO VARNISH CO., Chicago.

1 specimen elaterite—Utah.

COLORADO ONYX Co., 19 West Twenty-fourth street, New York City.

5 slabs onyx—Steamboat Springs, Colo.

DAVIDSON BROS. MARBLE CO., Chicago.

1 polished slab of Pavonazzo marble—Italy.

1 polished slab of common white marble—Italy.

DERN, JOHN, President Mercur Gold Mining and Milling Co., Salt Lake City, Utah.

Series of specimens, including gold ore, leaching solutions, mill product, etc., illustrating extraction of gold by the cyanide process as conducted at Mercur, Utah.

DOLDER, ADOLF, Panama, Colombia.

3 specimens gold ore, quartz and sulphides—Colombia.

EVANS MARBLE CO., Knoxville, Tenn.

6 slabs marble, 9x16 inches, polished, illustrating varieties of Tennessee marbles.

FIELD, J. B., Atlantic City, N. M.

1 specimen opal in matrix—Queretaro, Mexico.

FIELD COLUMBIAN MUSEUM.

Collected by D. G. Elliot:

1 quartz crystal—Olympian Mountains.

Collected by O. C. Farrington:

1 glaciated pebble—Grindelwald Glacier, Switzerland.

Collected by C. F. Millspaugh:

7 specimens limestone, building stone, soil and fossils—Bermuda Islands.

Purchases:

17 mineral specimens, including Opal, Endlichite, Lawsonite, Crocoite, etc.

1 Elephas tooth—Bliss, Snake River, Idaho.

1 etched section of Mount Joy meteorite, weighing 733 grammes—Mount Joy, Adams Co., Pa.

5 photographs, views in South Dakota.

1 section of Jamestown meteorite weighing 104 grammes.

1 etched section of Hayden Creek, Idaho, meteorite, weighing 51 grammes.

1 ærolite—Ness City, Kansas.

1 Elephas tooth—Street of Waxahachie, Texas.

- FINCH, JOHN W., Victor, Colo.
 4 specimens Stibnite—Cripple Creek District, Colo.
 9 specimens gold ore, some showing free gold—Cripple Creek District, Colo.
 1 specimen altered calaverite, from the Deadwood Mine, Independence, Colo.
- FITCH, A. B., Magdalena, N. M.
 4 specimens stalactites and 2 specimens stalagmites—Graphic Mines, Magdalena, N. M.
 2 specimens stalactites—Graphic Mines, Magdalena, N. M.
- FOX, HENRY, Sr., Dwight, Ill.
 2 photographs of Diorite boulder.
- HERRE, A. C., Springfield, Ill.
 4 specimens Chlorite, pseudomorph after Garnet crystals—Michigamme, Mich.
- HORNBAKER, W. R., Berwyn, Ill.
 1 specimen auriferous sand from the Saskatchewan River, Edmonton, Canada.
 3 specimens limestone with auriferous pyrites, 1 specimen Marcasite concretion, 4 fossil corals, 1 fossil cup coral, 2 specimens pyrite—Lyons Quarry, Lyons, Ill.
- HUGHITT, MARVIN AND BRENNAN, JOHN R.
 1 fossil Ammonite, 18 inches in diameter—Bad Lands, South Dakota.
- K. K. NATURHISTORISCHES HOF MUSEUM, Wien, Austria.
 Sections of Bohumilitz, Bjelokrynische and Tourinnes-la-Grosse meteorites (exchange).
 Specimens of Lorandite, Celestite, Cronstedtite, Halite and Gypsum (exchange).
- KNIGHT, PROF. W. C., Laramie, Wyo.
 Crystals of Gaylussite from soda beds, Sweetwater Valley, Wyo.
 Epsomite crystals—Wilcox Station, Wyo.
 1 specimen natural carbonate of soda containing Gaylussite crystals—Sweetwater Valley, Wyo.
- LARKIN, T. J., Field Columbian Museum.
 1 specimen Syringopora—Ireland.
- LEESON, J. J., Socorro, N. M.
 1 specimen Garnet, 3 specimens sandstone—New Mexico.
 1 specimen gold-platinum ore—Silver City, New Mexico.
- LESTER, F. M., 3845 Calumet Ave., Chicago.
 5 specimens copper ore—Black Hills, South Dakota.
- LICK OBSERVATORY, Mount Hamilton, Calif.
 Plates 6-19 of the Lick Observatory moon atlas.
- LOGAN, W. N., 5496 Ellis Ave., Chicago.
 23 specimens Kansas Cretaceous fossils including 3 types.
- MATHISON & CO., 29 Liberty Street, New York City.
 15 specimens Antimony ores.
 25 specimens metallurgical products from Antimony ores.
- MAXSON, COL. H. B., Reno, Nevada.
 8 specimens of ores and minerals—Nevada.
- MCCANN, J. P., Galena, Kansas.
 1 specimen cement rock—Fort Scott, Kans.
 1 specimen gypsum—Lyons, Kans.
 1 specimen rock salt—Marshall, Kans.
 1 specimen lead ore—Galena, Kans.
- MILLER, A. W., Portland, Ore.
 3 specimens gold ore—Oregon.
 2 specimens asbestos—Oregon.
 1 specimen Kaolin (Hydro-Silicon)—Oregon.
- MISSOURI SCHOOL OF MINES, Rolla, Mo.
 3 specimens flint clay—Missouri.

- MORONEY, JOHN J., Chicago.
105 specimens Briquettes burned from brick clays, 6 specimens brick and fire clays; 5 specimens china clays and sands, 1 specimen tripoli—United States and Mexico.
- MYERS, J. M. T., Fort Madison, Iowa.
14 specimens Carboniferous fossils (exchange.)
- NEWARK TECHNICAL SCHOOL, Newark, N. J.
22 mineral specimens, including Cyanite, Thaumassite, Amblygonite and sand concretions (exchange).
13 mineral specimens, 13 specimens clay concretions, 12 specimens raw clay and series illustrating manufacture of fertilizers (exchange).
- NILSSON, FRED., 7349 Madison Ave., Chicago.
1 card rolled cold from Swedish steel.
- OBSERVATOIRE DE PARIS, Paris, France.
4 Lunar photographs, 23x19 inches.
- OMAHA & GRANT SMELTING CO., Omaha, Neb.
6 specimens mattes and slags illustrating copper smelting.
1 specimen matte from pyritic smelting in South Dakota.
- PADDON, STEPHEN & CO., Chicago.
1 specimen natural sulphate of soda—Wyoming.
- PAGE, W. T., Omaha, Neb.
1 specimen native silver—Arizona (exchange).
- PEEK, W. H., 3404 Wabash Ave., Chicago.
4 specimens rocks of the White Mountains, N. H.
- PILCHER, J. E., Custer City, S. D.
20 specimens ores and minerals—Black Hills, S. D.
- PORTERFIELD, M. W., Silver City, N. M.
2 specimens Turquois in matrix, 2 specimens Opal, 2 specimens Opal in matrix, 1 specimen Onyx—8 miles from Silver City, N. M.
2 specimens silver-lead ore—New Mexico.
- RANCK, D. H., Chicago.
40 specimens building and ornamental stones.
- REEDER, JOHN T., Calumet, Mich.
2 specimens Domeykite—Sheldon & Columbia Mine, Houghton, Mich.
- REEVES, JAS. A., Joplin, Mo.
1 specimen lead ore—Missouri.
12 specimens raw and burned clays—Missouri.
- SKERTCHLY, PROF. S. B. J., Brisbane, Australia.
2 specimens tin ore—Herberton District, North Queensland.
- SMITH, DR. E. A., Austin, Ill.
Humerus, part of lower jaw and 5 vertebræ of Bison, found along the Chicago Drainage Canal.
- STANTON, F. M., Atlantic, Mich.
74 specimens of crystallized Native Copper and Calcite—Northern Michigan (loan).
1 specimen copper ore (native copper in matrix)—Baltic Mine, N. Mich.
- STEIN, CHARLES, Chicago.
2 specimens fossil corals—Lake Elkhart, Wis.
1 boulder of fossiliferous sandstone—Wisconsin.
2 specimens fossil brachiopods—Wisconsin.
1 specimen dolomite in chert—Wisconsin.
- UNIVERSITY OF CHICAGO, Chicago.
2 specimens Caliche (crude sodium nitrate)—District of Tarapaca, Chile.
- UNIVERSITY OF WISCONSIN, Madison, Wis.
39 mineral specimens—Various localities (exchange).
- VERD ANTIQUE MARBLE CO., Chicago.
1 polished 6-inch slab of Verd Antique marble—Holly Springs, Ga.
- VOTH, H. R., Keam's Cañon, Arizona.
10 precious Garnets—San Juan River, N. E. Arizona.

WAKE, C. S., Field Columbian Museum.

1 glaciated pebble—Lawndale, Ill.

WALKER, MRS. J. M., 1720 Prairie Ave., Chicago.

About 100 specimens copper, zinc, silver and gold ores, stalactites and crystallized copper and galena—various localities.

WARD, H. A., Rochester, N. Y.

8 grammes Veramin (Karand, Persia) meteorite (exchange).

WYOMING COMMISSION, TRANS-MISSISSIPPI EXPOSITION, Omaha, Neb.

1 specimen Epsomite—Albany County, Wyo.

1 specimen Chrysotile—Casper Mountains, Wyo.

2 specimens Asbestos—Albany County, Wyo.

1 specimen Chrysotile (shredded)—Casper Mountain, Wyo.

1 specimen Gypsum—Wyoming.

YUKON VALLEY PROSPECTING & MINING CO., Chicago.

1 specimen copper ore (Chalcopyrite)—Great Slave Lake, Canada.

1 specimen gold ore (Pyrite)—Great Slave Lake, Canada.

ZSCHÖRNER, KARL A. & CO., Wien, Austria.

27 specimens peat fibre and products manufactured from same.

DEPARTMENT OF ORNITHOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

AYER, EDWARD E., Chicago, Ill.

2 hybrid ducks.

CORY, CHARLES B., Boston, Mass.

1 wild turkey—Aiken, S. C.

FIELD COLUMBIAN MUSEUM.

Collected by William A. Bryan:

10 bird skins—Cook County, Ill.

2 blue-winged teal—Cook County, Ill.

1 olive-backed thrush—Cook County, Ill.

1 loggerhead shrike—Cook County, Ill.

Collected by Dr. C. F. Millspaugh:

Nest and eggs of frigate bird—Allison Island, Alacran Shoals, Gulf of Mexico.

Collected by Thaddeus Surber:

75 bird eggs—Alva, O. T.

Purchases:

2 Scotch grouse—Western United States.

1 ruffle grouse—Western United States.

2 Columbian grouse—Western United States.

1 linn, *Branta canadensis*—Minnesota.

2 lesser prairie hens—Texas.

1 barred owl—Wisconsin.

8 bird skins.

1 great Lapp owl—Kersesenanda, Russia.

1 heath hen—Martha's Vineyard, Mass.

KENNICOTT, HARRISON, The Grove, near Desplaines, Ill.

2 American sparrow hawks—Glenview, Ill.

DEPARTMENT OF ZOOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

ALLEN, WILLIAM, Field Columbian Museum.

1 turtle—Jackson Park, Chicago.

AMES, PHILIP, Ivanhoe, Lake County, Ill.

5 garter snakes—Lake County, Ill.



ORAIBI BLUE FLUTE ALTAR—STANLEY MCCORMICK EXPEDITION.

BEAN, DR. T. H., Washington, D. C.

- 39 beetles—Long Island, N. Y.
- 16 specimens fishes—Maine.
- 27 specimens fishes—Gravesend Bay, N. Y.
- 1 Mantis shrimp—Gravesend Bay, N. Y.
- 2 specimens fishes—Connecticut.
- 1 Bonito fish—Boston market.
- 1 large oyster shell—New York City.

BENEDICT, EDGAR, Chicago.

- 1 garter snake—Calumet River, Riverdale, Ill.

BRITISH MUSEUM, London, England.

- 452 specimens of Indian fishes (exchange).
- 82 specimens of Indian lizards (exchange).
- 22 specimens of Indian snakes (exchange).

BURT, JESSE A., Field Columbian Museum.

- 1 salamander—Evanston, Ill.

CHACE, H. T., Jr., Chicago.

- 2 snakes—Kenilworth, Ill.
- 1 salamander—Kenilworth, Ill.
- 2 brown snakes—Chicago.
- 1 garter snake—Chicago.
- 13 specimens reptiles—Tomahawk Lake, Wis.
- 7 specimens fishes—Tomahawk Lake, Wis.
- 7 specimens mammals—Tomahawk Lake, Wis.

EIGENMANN, DR. C. H., Bloomington, Ind.

- 20 turtles (5 species)—Winona Lake, Warsaw, Ind.

FIELD COLUMBIAN MUSEUM.

Collected by Charles Brandler, Field Columbian Museum :

- 33 rodents—Michigan.

Collected by D. G. Elliot, Field Columbian Museum :

- 7 deer, *Cervidae*, Olympic Mountains, Wash.
- 18 carnivora—Olympic Mountains, Wash.
- 480 rodents—Olympic Mountains, Wash.
- 21 rodents, 1 hair seal, 1 sea lion (young), 1 Sitka deer (female), 1 Sitka deer (fawn), 2 skulls Esquimaux dogs—Alaska and islands.

Collected by Dr. C. F. Millspough, Field Columbian Museum :

- 3 lizards, 11 crabs, 10 fishes, 2 crayfishes, 65 shells—Yucatan.

Collected by S. E. Meek, Field Columbian Museum :

- 160 specimens fishes (38 species)—Pacific Grove, Cal.
- 380 specimens fishes (50 species)—San Francisco, Cal.
- 1 sucker, 1 white fish, 1 lamprey, 6 herrings—Near Whiting, Ind.
- 5 naked mollusca, 3 devil fish, 2 shrimps, 2 crabs—San Francisco, Cal.
- 30 starfishes, 10 sea urchins—Monterey, Cal.
- 75 specimens reptiles (7 species)—Palo Alto and Monterey, Cal.
- 21 turtles, 8 snakes, 151 fishes—Winona Lake, Ind.

Collected by S. E. Meek and H. T. Chace :

- 125 specimens fishes, 2 turtles, 2 frogs—Near Whiting, Ind.

Collected by Thaddeus Surber :

- 5 blue-spotted sunfish, 1 red-spotted sunfish, 5 bullheads, 3 silvery minnows, 1 blunt-nosed minnow, 1 minnow, 5 frogs—Turkey Creek, Alva, Oklahoma Territory.
- 79 rodents, 1 mole, 1 polecat—Oklahoma Territory.
- 40 rodents and carnivores—Oklahoma Territory.
- 34 rodents and carnivore skins—Oklahoma and Indian Territories.
- 2 lizards—Indian Territory.
- 48 rodents—Dougherty and Oklahoma.
- 60 specimens fishes—Alva, Oklahoma Territory.
- 6 lizards, 5 toads, 7 frogs, 6 snakes—Oklahoma Territory.
- 14 snakes, 7 horned toads, 6 lizards, 4 frogs, 1 toad—Alva and White Horse Springs, Oklahoma Territory.
- 69 mammal skins, 77 mammal skulls—Oklahoma Territory.

Collected by Thaddeus Surber :

- 3 diamond rattlesnakes, 2 bull snakes, 1 soft-shelled turtle, 2 horned toads, 1 frog—White Horse Springs, Oklahoma Territory.
- 13 mammal skins, 2 mammal skulls—White Horse Springs, Oklahoma Territory, and Coolidge, Kan.

Purchases :

- 1 American fisher—Amasa, Mich.
- 3 badgers—Rocky Ford, Col.
- 1 fox—Rocky Ford, Col.
- 6 specimens fishes—Jackson Park pier, Chicago.
- 1 chimpanzee—Congo region.
- 1 fallow deer—Voges, France.
- 2 goats—Africa.
- 1 *Macrocelides typus*—Northeast Africa.
- 1 *Rhynchocyon petersi*—Zanzibar. *
- 6 *Spermophile* (squirrels)—Alberta, Canada.
- 2 chipmunks—Alberta, Canada.
- 4 little chief hare—Alberta, Canada.
- 1 weasel—Alberta, Canada.
- 1 bushy tailed rat—Alberta, Canada.
- 3 kit foxes (adults and young)—Rush Lake, Assiniboia.
- 17 rodents—Alberta, Canada.
- 28 mammal skins, rodents and carnivores, 1 badger skeleton—Alberta, Canada.
- 5 buffalo skins—Corbyris Herd.
- 69 mammal skins (rodents)—Central and Southern California.
- 44 rodents and insectivores—Europe.
- 1 buffalo skin and skeleton—Wichita, Kan.
- 8 mountain sheep skins—Alaska.
- 1 tiger cat skin—Africa.
- 1 spotted bushback skin—Africa.
- 1 eland skin—Africa.
- 1 thar—Himalay Mountains.

FORD, A. P., Berwyn, Ill.

- 5 fishes, 2 snakes (green)—Berwyn, Ill.
- 2 green snakes, 3 garter snakes, 12 fishes—Berwyn, Ill.

HANTON, HARRY, Field Columbian Museum.

- 1 bat—Jackson Park, Chicago.

HIGINBOTHAM, H. N., Chicago.

- 1 porcupine

HUME, JAMES A., Field Columbian Museum.

- 1 fresh water drum—Jackson Park, Chicago.

INDIAN MUSEUM, Calcutta, India.

- 2 specimens snakes—India (exchange).
- 9 specimens lizards—India (exchange).

JENKINS, DR. O. P., Stanford University, California.

- 7 specimens fishes—Honolulu.

KENKEL, LOUIS, 193 Fifty-fourth Place, Chicago.

- 2 green snakes, 14 garter snakes, 2 cricket frogs—Lake County, Ill.
- 127 insects—Lake County, Ill.

KENKEL, LOUIS, EDWARD AND ROBERT BENEDICT, Chicago.

- 22 toads—Chicago.

KNOCH, PROF. J. J., Fayetteville, Ark.

- 4 salamanders—Fayetteville, Ark.

KOFOID, C. A., Champaign, Ill.

- 3 fishes (darters)—Havana, Ill.

KUHN, CHARLES, Field Columbian Museum.

- 1 bat—West Annex of Field Columbian Museum.

McNULTA, GENERAL JOHN, 5112 East End Avenue, Chicago,

- 19 specimens trout—Little Manistee River, Mich.
- 1 sculpin—Little Manistee River, Mich.
- 3 fishes (siscowet)—Ashland, Wis.

- MEEK, HIRAM, Hicksville, Ohio.
2 painted tortoise.
4 crayfishes.
8 specimens fishes (2 species).
3 fox squirrels.
2 gray squirrels.
1 black squirrel.
- MEEK, S. E., Field Columbian Museum.
1 rabbit skin, 1 red squirrel, 2 field mice, 1 fox squirrel, Hicksville, Ohio.
10 toads, 57 frogs, 2 snakes, 100 fishes, 3 mammal skins, 1 salamander—
Gravenhurst, Ont.
1 fox squirrel, 1 rabbit, 1 red squirrel—Hicksville, Ohio.
- MILLSPAUGH, DR. C. F., Field Columbian Museum.
3 turtle eggs—South end Lake Michigan.
- MITCHELL, LUCIAN, Greenway, Ark.
1 siren, 1 lizard, 1 tree-toad, 1 snake, 3 insects, 1 mole—Greenway, Ark.
1 Congo snake—Greenway, Ark.
- ORCUTT, C. R., San Diego, Cal.
328 specimens shells (100 species)—Various localities (exchange).
579 specimens shells (170 species)—Various localities (exchange).
- OTTO, ALBERT J., Field Columbian Museum.
1 salamander—Jackson Park, Chicago.
- OULMAN, MISS BETTY, 6616 Jackson Avenue, Chicago.
1 bat.
- RINGLING BROS.
1 Axis deer (young).
- ROBINSON, DR. BYRON, 100 State Street, Chicago.
10 specimens fishes—East Coast U. S.
18 specimens fishes—Wood's Hole, Mass. (exchange).
46 specimens fishes—Eastern U. S. (exchange).
12 specimens fishes—Wood's Hole, Mass. (exchange).
- SCHUBERT, A., Chicago Beach Hotel, Chicago.
1 white skunk—Wisconsin.
1 brown skunk—Indiana.
1 white coon—Wisconsin.
- STANFORD UNIVERSITY, Palo Alto, Cal.
750 specimens fishes—Various localities (exchange).
84 specimens reptiles—Various localities (exchange).
- STRODE, W. S., Lewiston, Ill.
1 rattlesnake—Lewiston, Ill.
- SURBER, THADDEUS, White Sulphur Springs, W. Va.
1 raccoon—West Virginia.
31 rodents—West Virginia.
- TOMPSON, A. J., Field Columbian Museum.
1 specimen fish—Jackson Park, Chicago.
- TRELEASE, WILLIAM, St. Louis, Mo.
1 wolverine—Yutat Bay, Alaska.
- UNITED STATES FISH COMMISSION, Washington, D. C.
620 specimens fishes—Various localities.
1 Dalli sheep—Alaska (exchange).
2 meadow mice—Sumas, B. C. (exchange).
- VERBURG, DENNIS, Field Columbian Museum.
1 bat—Field Columbian Museum.
- WARKE, THOMAS, Field Columbian Museum.
1 bat—Jackson Park, Chicago.
- WELLS, MRS. H. E., Lake Harbor, Mich.
1 oil painting of larva of moth, *Cecropia samia*.
- WILLARD, F. C., Tombstone, Ariz.
2 lizards, 1 horned toad, 1 snake, 6 insects—Tombstone, Arizona.

- WING, DR. E., 4822 Lake Avenue, Chicago.
 1 trap-door spider and nest—California.
- WITTER, C. O., South Bend, Ind.
 4 squirrel tree frogs—South Bend, Ind.
- WOOD, MISS GRACE, 5201 Cornell Avenue, Chicago.
 1 bat—Chicago.

SECTION OF PHOTOGRAPHY.

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- ALLEN, E. P., Chicago.
 2 negatives, Installation of Ceramic Hall in 1894.
- FIELD COLUMBIAN MUSEUM.
 Made by E. P. Allen, on A. V. Armour Expedition:
 372 negatives, views taken in the West Indies.
- Made by Museum Operator :
 176 negatives, miscellaneous views.
- Made by Geo. A. Dorsey :
 4 negatives, views about the work shops of the flint implement-worker
 mounds—Southern Illinois.
- 3 negatives, evidences of primitive workshops in Peoria, Indian Territory.
- Purchases:
 17 lantern slides, "From Columbus to Cervera."
 48 lantern slides, "Tour of the Plant World."

SPECIAL ACCESSIONS.

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- LAWSON, VICTOR F., Chicago.
 1 Etruscan necklace.

DEPARTMENT OF TRANSPORTATION.

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- ROBINSON, HENRY A., 621 Broadway, New York City.
 Photograph of a horse-car operated on the Eighth Avenue Railroad
 Co.'s lines in New York City prior to 1855.

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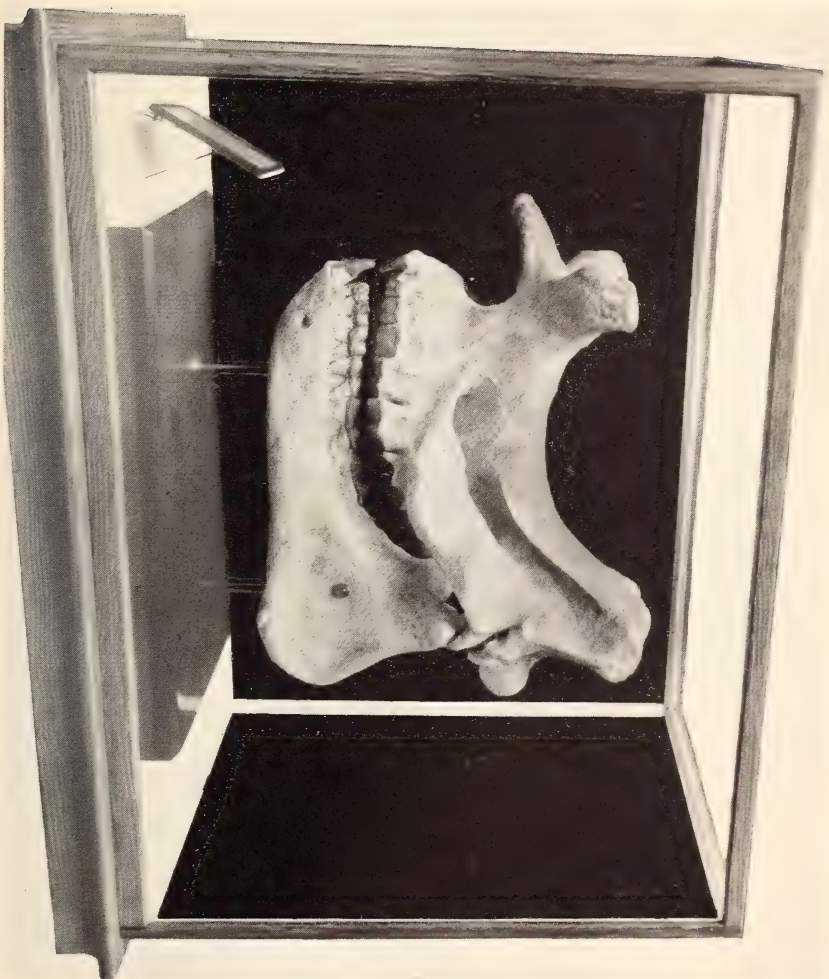
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Books, Pamphlets and Serials.

- ALABAMA AGRICULTURAL EXPERIMENT STATION, Auburn, Ala.
 Bulletin, 43 nos.
 Contributions, no. 1.
- ALABAMA GEOLOGICAL SURVEY, University, Ala.
 Bulletin, vol. 5, no 1.
 Iron making in Alabama.
- ALABAMA INDUSTRIAL AND SCIENTIFIC SOCIETY, University, Ala.
 Proceedings, vol. 8, and vol. 9, pt. 1.
- ALPINE CLUB, London, England.
 Alpine journal, vol. 15, no. 110.

- AMBROSETTI, JUAN B. (the author), Buenos Aires, Argentina.
La antigua ciudad de Quilmes, with 6 other pams.
- AMERICAN ACADEMY OF ARTS AND SCIENCES, Boston, Mass.
Proceedings, current nos.
- AMERICAN ANTIQUARIAN SOCIETY, Worcester, Mass.
Proceedings, current pts.
- AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,
North Andover, Mass.
Preliminary announcement of 47th and 48th meetings.
Proceedings, vol. 47.
- AMERICAN FOLK-LORE SOCIETY, Cambridge, Mass.
Journal of American folk-lore, vol. 12, nos. 44 and 45.
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The Forester, current nos. (gift).
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Transactions of 54th session (gift).
- AMERICAN MUSEUM OF NATURAL HISTORY, New York City.
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Bulletin, vol. 10.
- AMERICAN NUMISMATIC AND ARCHÆOLOGICAL SOCIETY, New
York City.
Proceedings and papers, 40th and 41st meetings.
- AMERICAN ORIENTAL SOCIETY, New Haven, Conn.
Journal, vol. 20, pt. 1.
- AMERICAN PHILOSOPHICAL SOCIETY, Philadelphia, Pa.
Proceedings, vol. 37, nos. 158 and 159.
- AMERICAN SOCIETY OF NATURALISTS, Providence, R. I.
Records, vol. 2, pts. 2 and 3.
- AMHERST COLLEGE, Amherst, Mass.
Addresses of the Alumni, 1898.
Catalogue, 1898-'99.
Obituary record of graduates, 1897-'98.
- AMSTERDAM. K. AKADEMIE VAN WETENSCHAPPEN, Amsterdam,
Netherlands.
Verhandeligen, vol. 6, nos. 1 and 2.
Zittingsverslagen der wis-en natuurkundige afdeeling, vol. 6.
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lands.
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Hvor var Vinland? (gift).
- ANDOVER THEOLOGICAL SEMINARY, Andover, Mass.
Catalogue, 1898-99.
- ANDREE, RICHARD, Braunschweig, Germany.
Globus, vols. 74 and 75.
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LAND, London, Eng.
Journal, current nos.
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Proceedings, current nos.

- ASSOCIATION OF AMERICAN ANATOMISTS, Washington, D. C.
Proceedings of the 11th annual session.
- AUCKLAND INSTITUTE AND MUSEUM, Auckland, New Zealand.
Annual report, 1895-'96 and 1898-'99.
- AUGUSTANA COLLEGE AND THEOLOGICAL SEMINARY, Rock Island, Illinois.
Augustana Library publications, no. 1.
- AUSTRALIAN MUSEUM, Sydney, New South Wales.
Descriptive catalogue of the tunicata in the Museum.
Memoirs, vol. 3, pts. 7-9.
Records, vol. 3, no. 5.
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- BÄCKSTRÖM, HELGE (the author), Stockholm, Sweden.
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Sledges with bone runners in modern use.
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On some dikes in the vicinity of Johns Bay, Maine.
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Book of the royal blue, vol. 1 and current nos.
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Origin and significance of spines.
Othniel Charles Marsh.
- BELOIT COLLEGE, Beloit, Wis.
Annual catalogue, 1898-'99.
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schriften, 1897-'98.
- BERLIN. K. BOT. GARTEN UND MUSEUM, Berlin, Germany.
Notizblatt, nos. 15-18.
- BERLIN. KÖNIGLICHE MUSEEN, Berlin, Germany.
Führer durch das Museum für Völkerkunde.
Veröffentlichungen, vol. 6, pts. 1-4.
- BERLIN. K. PREUSSISCHE AKADEMIE DER WIS., Berlin, Germany.
Sitzungsberichte, current pts.
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Mitteilungen, vol. 1, nos. 2 and 3.
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Bombay, India.
Annual report, 14th and 15th.
Crop experiments, 1897-'98.
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Germany.
Über die spektren des jod, with another pam.



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- BOSTON. PUBLIC LIBRARY, Boston, Mass.
Annual list of new and important books, 1897-98.
Annual report, 1898-99.
Monthly bulletin, current nos.
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Annual report, 1898.
- BRITISH COLUMBIA. LEGISLATIVE ASSEMBLY LIBRARY, Victoria, B. C.
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- BRUXELLES. SOCIÉTÉ D'ARCHÉOLOGIE, Bruxelles, Belgium.
Annales, vol. 13, pts. 1 and 2.
Annuaire, vol. 10, 1899.
- BRUXELLES. SOCIÉTÉ ROYALE LINNÉENNE, Bruxelles, Belgium.
Bulletin, current nos.
- BUDAPEST. K. MAGYAR TERMÉSZETTUDOMÁNYI TARSULAT, Budapest, Hungary.
Der organismus der craspedomonaden, with 5 other publications.
- BUENOS AIRES. INSTITUTO GEOGRAFICO ARGENTINO, Buenos Aires, Argentina.
Boletin, vol. 19.
- BUENOS AIRES MUSEO NACIONAL, Buenos Aires, Argentina.
Anales, vol. 6.
Comunicaciones, vol. 1, nos. 1 and 2.
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Bulletin, vol. 2, pt. 8.

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Annual report of the Garden, 1898-'99.
Annual report of the Gov't Cinchona Plantation in Sikkim, 1897-'98.
- CALIFORNIA ACADEMY OF SCIENCES, San Francisco, Cal.
Proceedings, current nos.
- CALIFORNIA AGRICULTURAL EXPERIMENT STATION, Berkeley, Cal.
Bulletin, current nos.
- CALIFORNIA STATE LIBRARY, Sacramento, Cal.
Biennial report, 1896-'98.
- CALIFORNIA STATE MINING BUREAU, San Francisco, Cal.
Thirteenth report, 1895-'96.
- CALIFORNIA UNIVERSITY, Berkeley, Cal.
Annual report, 1897-'98.
University Chronicle, current nos.
1 pamphlet.
- CAMBRIDGE. MUSEUMS AND LECTURE ROOMS SYNDICATE, Cambridge, England.
Annual report, 33rd.
- CAMBRIDGE PUBLIC LIBRARY, Cambridge, Mass.
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- CAMBRIDGE UNIVERSITY PRESS, Cambridge, England.
Catalogue of the collection of birds formed by the late H. E. Strickland (gift).
- CANADA. GEOLOGICAL SURVEY, Ottawa, Canada.
Annual report, new ser. vol. 9.
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Proceedings, current nos.
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- CAPE GOVERNMENT HERBARIUM, Cape Town, Cape Colony.
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Third annual exhibition, 1898.
- CARNEGIE LIBRARY, Pittsburgh, Pa.
Annual report, 3rd.
- CARNEGIE MUSEUM, Pittsburgh, Pa.
Annual reports, 1897 and 1898.
Founders' day, 1898.
Prize essay contests, 1896-'98.
- CARPENTER, G. H., Dublin, Ireland.
The Irish naturalist, current nos.
- CASE SCHOOL OF APPLIED SCIENCE, Cleveland, Ohio.
Report of the Geol. Survey of Ohio, vol. 4.
- CATHOLIC UNIVERSITY OF AMERICA, Washington, D. C.
Catholic University bulletin, current nos.
- CENTRAL ART ASSOCIATION, Chicago.
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Rutgers College geological museum, by W. S. Valians.
- CHICAGO. ART INSTITUTE, Chicago.
Catalogue of works of Maurice Boutet de Monvel, with 6 other catalogues.

- CHICAGO HISTORICAL SOCIETY, Chicago.
Report of meeting, Jan. 17, 1899.
- CHICAGO PUBLIC LIBRARY, Chicago.
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- CINCINNATI MUSEUM ASSOCIATION, Cincinnati, Ohio.
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2 pamphlets.
- COLORADO. STATE HISTORICAL AND NATURAL HISTORY SOCIETY.
Denver, Colo.
History of the Department of Natural History.
Reports 1889 and 1890.
- COLORADO STATE LIBRARY, Denver, Colo.
School law of the state of Colorado.
- COLORADO. STATE SCHOOL OF MINES, Golden, Colo.
Annual report, 1889.
Biennial reports, 1889-'90 and 1895-98.
Catalogues, 1891-'92 and 1896-'99.
- COLUMBIA UNIVERSITY, New York City.
Annual report, 9th.
Catalogue, 1898-'99.
Columbia University quarterly, current nos.
Index to bulletins 1-20.
1 pamphlet.
- CONNECTICUT AGRICULTURAL EXPERIMENT STATION, Hartford, Conn.
Annual report, 22nd.
Bulletin, current nos.
- COOPER UNION, New York City.
Annual report, 40th.
- COPENHAGEN. MINERALOGICAL MUSEUM OF THE UNIVERSITY,
Copenhagen, Denmark.
Beretning, 1893-'98.
- CORA, GUIDO, Roma, Italy.
Cosmos, ser. 2, vol. 12, nos. 11 and 12.
- CORNELL UNIVERSITY AGRICULTURAL EXP. STATION, Ithaca, N. Y.
Bulletin, current nos. (gift).

- CORNELL UNIVERSITY LIBRARY, Ithaca, N. Y.
Register, 1895-'99.
Science bulletin, vol. 2.
- COSTA RICA. INSTITUTO FISICO-GEOGRAFICO NACIONAL, San José, Costa Rica.
Primitiæ floræ Costaricensis, vol. 2, pts. 1 and 2.
- COSTA RICA. MUSEO NACIONAL, San José, Costa Rica.
Informe, 1898-'99.
- CREDNER, HERMANN, Leipzig, Germany.
Sächsische erdbeben, 1889-'97.
- CROSS, WHITMAN (the author), Washington, D. C.
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Uebersicht der akademischen behörden, 1899-1900.
Verzeichnis der öffentlichen vorlesungen, 1899 to 1900.
- DABNEY, C. W., Jr. (the author), Knoxville, Tenn.
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Catalogue, 1898-'99.
- DELAWARE COLLEGE AGRICULTURAL EXP. STATION, Newark, Del.
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- DETROIT MUSEUM OF ART, Detroit, Mich.
Third annual exhibition of the Society of Western Artists.
- DETROIT PUBLIC LIBRARY, Detroit, Mich.
Annual report, 34th.
General catalogue, 2nd supplement.
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Sprichwörter der japanischen sprache, pt. 5.
- DIAL PUBLISHING CO., Chicago.
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- DRESDEN. KÖNIGLICHE SAMMLUNGEN, Dresden, Germany.
Catalog der hand-bibliothek, 1898.
Mittheilungen aus dem Mineralogischen Museum, heft 14.
Zoologisches und Anthropol.-Ethnogr. Museum, 1896.
- DREW THEOLOGICAL SEMINARY, Madison, N. J.
Fifth report of the library.
Yearbook, 1898-'99.
- DULUTH HISTORICAL AND SCIENTIFIC ASSOCIATION, Duluth, Minn.
Proceedings: History of Duluth.
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- EDINBURGH GEOLOGICAL SOCIETY, Edinburgh, Scotland.
Transactions, vol. 7, pt. 4.
- EDINBURGH MUSEUM OF SCIENCE AND ART, Edinburgh, Scotland.
General catalogue of the books in the library.
Report, 1897.
- EDINBURGH ROYAL SOCIETY, Edinburgh, Scotland.
Proceedings, vol. 22, nos. 1 and 3.
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- FRIEDLÄNDER, R. AND SOHN, Berlin, Germany.
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Über einige während der ersten Regnellischen expedition gesammelte gamopetalen.

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- GATSCHET, A. S. (the author), Washington, D. C.
2 pamphlets.
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- GENTLEMAN FARMER CO., Chicago.
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Bulletin, current nos.
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Administrative report, 1898.
Bulletin, nos. 4 and 5.
- GIESSEN. HESSISCHE LUDWIGS-UNIVERSITÄT, Hesse, Germany.
12 inaugural dissertations.
- GLASGOW. NATURAL HISTORY SOCIETY, Glasgow, Scotland.
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Bulletin of pharmacy, current nos.
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- PEABODY MUSEUM, Cambridge, Mass.
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Bulletin, nos. 42, 44 and 45 (gift).
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Pennsylvania magazine of history and biography, current nos.
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Catalogue, 1898-'99.
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- PENNSYLVANIA UNIVERSITY, FREE MUSEUM OF SCIENCE AND ART, Philadelphia, Pa.
Bulletin, no. 4, and vol. 2, no. 1.
- PEORIA PUBLIC LIBRARY, Peoria, Ill.
Annual report, 19th.
Classified catalogue.
- PERKINS, G. H. (the author), Burlington, Vt.
Report on the marble, slate and granite industries of Vermont.
- PERKINS INSTITUTE and MASSACHUSETTS SCHOOL FOR THE BLIND, Boston, Mass.
Annual report, 67th.
- PHARMACEUTICAL REVIEW PUB. CO., Milwaukee, Wis.
Pharmaceutical review, current nos.
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Catalogue, 1898-'99.
Princeton University bulletin, current nos.



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Annual report, 63rd.
Bulletin, vol. 4, current nos.
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Monthly bulletin, current nos.
- PURDUE UNIVERSITY, Lafayette, Ind.
Annual catalogue, 1898-'99.
Annual report, 24th.
Purdue University monographs, nos. 5 and 6.
- PURDUE UNIVERSITY AGRICULTURAL EXP. STATION, Lafayette, Ind.
Bulletin, current nos.
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- QUEENSLAND. DEPARTMENT OF MINES, Brisbane, Queensland.
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Proceedings, vol. 14.
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Revue scientifique, current nos.
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Annual catalogue, 1899.
- ROSENBUSCH, H. (the author), Heidelberg, Germany.
Zur deutung der glaukophangesteine.
- ROYAL ASIATIC SOCIETY, CEYLON BRANCH, Colombo, Ceylon.
Journal, vol. 15, no. 49.
- ROYAL ASIATIC SOCIETY, CHINA BRANCH, Shanghai, Asia.
Journal, vol. 30.
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- ST. LAURENT COLLEGE, Montréal, Canada.
Année académique, 1896-'98.
Bulletin, nos. 10, 12 and 13.
- ST. LOUIS ACADEMY OF SCIENCE, St. Louis, Mo.
Transactions, current nos.

- ST. LOUIS MUSEUM OF FINE ARTS, St. Louis, Mo.
2 catalogues.
- ST. LOUIS UNIVERSITY, St. Louis, Mo.
Catalogue, 1898-'99.
- ST. PAUL PUBLIC LIBRARY, St. Paul, Minn.
Annual reports, 16th and 17th.
Third supplement.
- ST. PETERSBURG. ACADEMIE IMPÉRIALE DES SCIENCES, St. Petersburg, Russia.
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Mémoires, ser. 8, vols. 1-5.
Meteorological atlas.
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21 annual reports, 1853-'99.
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Boletim, nos. 4-14.
Dados climatológicos, 1891-'97.
- SCHARIZER, RUDOLF, Czernowitz, Austria-Hungary.
Beiträge zur kenntniss der chem. constitution der natürlichen eisensulfate, 1.
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 Proceedings, vol. 20.
 Report, 1896.
 Smithsonian miscellaneous collections, nos. 1170 and 1171.
- SOCIEDAD CIENTIFICA "ANTONIO ALZATE," Mexico, Mex.
 Memorias y revista, current nos.
- SOCIEDAD ESPAÑOLA DE HISTORIA NATURAL, Madrid, Spain.
 Anales, ser. 2, vols. 6 and 7.
- SOCIETÀ GEOGRAFICA ITALIANA, Roma, Italy.
 Bollettino, current nos.
 Memorie, vol. 18, pt. 2.
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 Archivio, vol. 28, nos. 1-3.
- SOCIÉTÉ DES AMÉRICANISTES DE PARIS, Paris, France.
 Journal, nos. 6 and 7.
- SOCIÉTÉ OURALIENNE D'AMATEURS DES SCIENCES NATURELLES, Ekaterinburg, Russia in Asia.
 Bulletin, current nos.
- SOCIETY FOR PHYSICAL RESEARCH, Boston, Mass.
 Proceedings, current nos.
- SOUTH AFRICAN MUSEUM, Cape Town, Cape Colony.
 Annals, vol. 1, pt. 2.
 Report, 1898.
- SOUTH AFRICAN PHILOSOPHICAL SOCIETY, Cape Town, Cape Colony.
 Transactions, vol. 10, pts. 2 and 3.
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 Bulletin, no. 2.
- SOUTH DAKOTA SCHOOL OF MINES, Rapid City, S. D.
 Bulletin on geology of Southern Black Hills.
- SPRINGFIELD. CITY LIBRARY ASSOCIATION, Springfield, Mass.
 Annual report, 38th.
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 Proceedings, current nos.
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 Bihang till handlingar, vol. 23.
 Handlingar, new ser., vols. 29 and 30.
 Öfversigt af förhandlingar, 1897.
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 Program, 1899-1900.
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 Antiquarish tidskrift för Sverige, vol. 13, pts. 1-3; vol. 14, pts. 2-4; vol. 15, pts. 1 and 2; and vol. 16, pts. 1-3.
 Beschreibung der wichtigsten gegenstände des Museums Vaterl. Alterthümer.
 Compte rendu de la 7e session, Congres Int. d'Anthrop & d'Archeol. Prehist., 1874.
 Månadsblad, 1895.

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91 Ontario and Canada Government reports.
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Transactions, proceedings and report of Royal Society of S. Australia,
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1 pamphlet.
- TEXAS ACADEMY OF SCIENCE, Austin, Tex.
Transactions, vol. 2, no. 2.
- TOKYO BOTANICAL SOCIETY, Tokyo, Japan.
Botanical magazine, current nos.
- TOKYO. DEUTSCHE GESELLSCH. FÜR NATUR UND VÖLKERKUNDE
OSTASIENS, Tokyo, Japan.
Sprichwörter und bildlichen ausdrücke der japanischen sprache, pt. 4.
- TOOKER, W. W. (the author), Sag Harbor, New York City.
The adopted Algonquin term "Poquosin."
- TORINO. MUSEI DI ZOOLOGIA ED ANATOMIA DELLA R. UNIV.,
Torino, Italy.
Bollettino, current nos.
- TORINO. R. ACCADEMIA DELLE SCIENZE, Torino, Italy.
Atti, current nos.
Osservazioni meteorologiche, 1897.
- TORONTO UNIVERSITY, Toronto, Canada.
Studies, biol. ser., no. 1.
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- TORREY BOTANICAL CLUB, New York City.
Bulletin, current nos.
- TRENTON NATURAL HISTORY SOCIETY, Trenton, N. J.
Journal, vol. 1 and vol. 2, nos. 1 and 2.
- TRING. ZOOLOGICAL MUSEUM, Tring, England.
Novitates zoologicae, current nos.
- TRINITY COLLEGE, Dublin, Ireland.
Hermathena, no. 24.
- TÜBINGEN. K. UNIVERSITÄTS-BIBLIOTHEK, Tübingen, Germany.
Universitätsschriften, 1897-'98.
- TURNER, H. W. (the author), Washington, D. C.
Notes on some igneous rocks of the coast ranges of California.
- UHLER, P. R. (the author), Baltimore, Md.
Preliminary notice of a recent series of geological accumulations, the
McHenry formation.
- UNION UNIVERSITY, Schenectady, N. Y.
Annual catalogues, 1897-'99.
- U. S. AGRICULTURAL DEPARTMENT, Washington, D. C.
Annual reports, 1898.
Annual report of Bureau of Animal Industry, 1897.
Experiment station record, current nos.
North American fauna, nos. 14 and 15.
Yearbook, 1898.
86 bulletins.
52 circulars.
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- U. S. AMERICAN REPUBLICS BUREAU, Washington, D. C.
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Report on the deaf for 1897.
Report, 1896-'97, vol. 2.
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Bulletin, vol. 17, 1897.
Fresh water pearls and pearl fisheries of the U. S.
Report of the Commissioner, 1897-'98.
- U. S. GEOLOGICAL SURVEY, Washington, D. C.
Annual report, 18th, vols. 1-4, and 19th, vols. 1, 4 and 6.
Bulletins, 88, 89, and 149-156.
Maps and descriptions of Alaska, 1898.
Monographs, vol. 29-31 and 35.
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Annual report, 11th.
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- VICTORIA. FIELD NATURALISTS' CLUB, Melbourne, Victoria.
Victorian naturalist, current nos.
- VICTORIA. ROYAL SOCIETY, Melbourne, Victoria.
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Proceedings at 46th annual meeting.
- WISCONSIN UNIVERSITY, Madison, Wis.
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- WORCESTER. FREE PUBLIC LIBRARY, Worcester, Mass.
Annual report, 39th.
Monthly bulletin, current nos.
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Jahreshefte, vol. 55.
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Annual report, 8th.
Bulletin, nos. 37-40.
- WYOMING HISTORICAL AND GEOLOGICAL SOCIETY, Wilkes-Barre, Pa.
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1 pamphlet.
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Festschrift, 1746-1896, pts. 1 and 2.
Vierteljahrsschrift, vols. 42, 43, and vol. 44, nos. 1 and 2 (gift).

ARTICLES OF INCORPORATION.

STATE OF ILLINOIS.

DEPARTMENT OF STATE.

WILLIAM H. HINRICHSSEN, *Secretary of State* :

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING :

Whereas, a Certificate duly signed and acknowledged having been filed in the office of the Secretary of State, on the 16th day of September, A. D. 1893, for the organization of the COLUMBIAN MUSEUM OF CHICAGO, under and in accordance with the provisions of "An Act Concerning Corporations," approved April 18, 1872, and in force July 1, 1872, and all acts amendatory thereof, a copy of which certificate is hereto attached,

Now, therefore, I, William H. Hinrichsen, Secretary of State of the State of Illinois, by virtue of the powers and duties vested in me by law, do hereby certify that the said COLUMBIAN MUSEUM OF CHICAGO is a legally organized Corporation under the laws of this State.

In Testimony Whereof, I hereto set my hand and cause to be affixed the great Seal of State. Done at the City of Springfield, this 16th day of September, in the year of our Lord one thousand eight hundred and ninety-three, and of the Independence of the United States the one hundred and eighteenth.

W. H. HINRICHSSEN,

[SEAL]

Secretary of State.

TO HON. WILLIAM H. HINRICHSSEN,

SECRETARY OF STATE :

SIR :

We, the undersigned citizens of the United States, propose to form a corporation under an act of the General Assembly of the State of Illinois, entitled, "An Act Concerning Corporations," approved April 18, 1872, and all acts amendatory thereof; and that for the purposes of such organization we hereby state as follows, to wit :

1. The name of such corporation is the "COLUMBIAN MUSEUM OF CHICAGO."

2. The object for which it is formed is for the accumulation and dissemination of knowledge, and the preservation and exhibition of objects illustrating Art, Archeology, Science and History.

3. The management of the aforesaid museum shall be vested in a Board of FIFTEEN (15) TRUSTEES, five of whom are to be elected every year.

4. The following named persons are hereby selected as the Trustees for the first year of its corporate existence :



GROUP OF DEMONELIX—COLLECTED BY BAD LANDS EXPEDITION OF 1896—FIELD COLUMBIAN MUSEUM.

Ed. E. Ayer, Charles B. Farwell, George E. Adams, George R. Davis, Charles L. Hutchinson, Daniel H. Burnham, John A. Roche, M. C. Bullock, Emil G. Hirsch, James W. Ellsworth, Allison V. Armour, O. F. Aldis, Edwin Walker, John C. Black and Frank W. Gunsaulus.

5. The location of the Museum is in the City of Chicago, County of Cook, and State of Illinois.

(Signed),

George E. Adams, C. B. Farwell, Sidney C. Eastman, F. W. Putnam, Robert McMurdy, Andrew Peterson, L. J. Gage, Charles L. Hutchinson, Ebenezer Buckingham, Andrew McNally, Edward E. Ayer, John M. Clark, Herman H. Kohlsaat, George Schneider, Henry H. Getty, William R. Harper, Franklin H. Head, E. G. Keith, J. Irving Pearce, Azel F. Hatch, Henry Wade Rogers, Thomas B. Bryan, L. Z. Leiter, A. C. Bartlett, A. A. Sprague, A. C. McClurg, James W. Scott, Geo. F. Bissell, John R. Walsh, Chas. Fitzsimons, John A. Roche, E. B. McCagg, Owen F. Aldis, Ferdinand W. Peck, James H. Dole, Joseph Stockton, Edward B. Butler, John McConnell, R. A. Waller, H. C. Chatfield-Taylor, A. Crawford, Wm. Sooy Smith, P. S. Peterson, John C. Black, Jno. J. Mitchell, C. F. Gunther, George R. Davis, Stephen A. Forbes, Robert W. Patterson, Jr., M. C. Bullock, Edwin Walker, Geo. M. Pullman, William E. Curtis, James W. Ellsworth, William E. Hale, Wm. T. Baker, Martin A. Ryerson, Huntington W. Jackson, N. B. Ream, Norman Williams, Melville E. Stone, Bryan Lathrop, Eliphalet W. Blatchford, Philip D. Armour.

STATE OF ILLINOIS, }
COOK COUNTY. } ss.

I, G. R. MITCHELL, a NOTARY PUBLIC in and for said County, do hereby certify that the foregoing petitioners personally appeared before me and acknowledged severally that they signed the foregoing petition as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 14th day of September, 1893.

G. R. MITCHELL,

[SEAL]

NOTARY PUBLIC, COOK COUNTY, ILL.

CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the corporate members held the 25th day of June, 1894, the name of the COLUMBIAN MUSEUM was changed to FIELD COLUMBIAN MUSEUM. A certificate to this effect was filed June 26, 1894, in the office of the Secretary of State for Illinois.

FIELD COLUMBIAN MUSEUM.

AMENDED BY-LAWS.

(APRIL 25, 1898.)

ARTICLE I.

MEMBERS.

SECTION 1. Members shall be of five classes, Annual Members, Corporate Members, Life Members, Patrons and Honorary Members.

SEC. 2. Annual members shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of ten dollars (\$10.00), payable within thirty days after notice of election, and within thirty days after each recurring annual date. The failure of any person to make such initiatory payment and such annual payments within said time shall, at the option of the Board of Trustees, be ground of forfeiture of annual membership.

This said annual membership shall entitle the member to:

First.—Free admittance for himself and family to the Museum on any day.

Second.—Ten tickets every year admitting the bearer to the Museum on pay days.

Third.—A copy of every publication of the Museum sold at the entrance door, and to the annual reports.

Fourth.—Invitations to all receptions, lectures or other entertainments which may be given at the Museum.

SEC. 3. The corporate members shall consist of the persons named in the articles of association, and of such other persons as shall be chosen from time to time by the Board of Trustees at any of its meetings, upon the recommendation of the Executive Committee; provided, that such persons named in the articles of association shall, within ninety days from the adoption of these By-Laws, and persons hereafter chosen as corporate members, shall, within ninety days of their respective election, pay into the treasury the sum of twenty dollars (\$20.00) or more. The failure of any person to make such payments within said time shall, at the option of the Board of Trustees, be ground for forfeiture of his corporate membership. The annual dues of corporate members shall be five dollars (\$5.00) after the first year of membership, and no one shall exercise the rights of a corporate member until his dues are paid; and a delinquency of six months in the payment of annual dues shall be ground for forfeiture of corporate membership. Corporate Members becoming Life Members, Patrons or Honorary Members shall be exempt from dues.

SEC. 4. Any person paying into the treasury the sum of five hundred dollars at any one time shall, upon the unanimous vote of the trustees, become a life member. Life members shall be exempt from all dues.

SEC. 5. Patrons shall be chosen by the Board of Trustees, upon recommendation of the Executive Committee, from among persons who have rendered

eminent service to the Museum. They shall be exempt from all dues, and, by virtue of their election as patrons, shall also be corporate members.

SEC. 6. Honorary members shall be chosen from among persons who have rendered eminent service to science, art or mechanics. They shall be chosen by a vote of the Trustees, and only upon unanimous nomination of the Executive Committee. They shall be exempt from all dues. In commemoration of the 14th day of October, honorary members shall not be more than fourteen in number at any one time.

SEC. 7. All members of whatever class shall be eligible to appointment upon committees other than the Executive Committee.

ARTICLE II.

OFFICERS.

SECTION 1. The respective members of the Board of Trustees now in office, and those who shall hereafter be elected, shall hold office during life. Vacancies occurring in the Board shall be filled by a majority vote of the remaining members of the Board of Trustees at any regular meeting.

SEC. 2. The other officers shall be President, two Vice-Presidents, Secretary and Treasurer, and an Executive Committee of four persons, who shall be chosen by ballot by the Board of Trustees from their own number as early as practicable after the annual meeting in each year. The President shall be *ex-officio* a member of the Executive Committee, in addition to the other four members. The Secretary and Treasurer may, or may not, be the same person, and the Secretary may, or may not, be a corporate member.

Any officer may be removed at any regular meeting of the Board of Trustees by a vote of two-thirds of all the members of the Board. Vacancies in any office may be filled by the Board at any meeting.

SEC. 3. The President shall appoint from among the Trustees a Committee on Finance, a Committee on Property, an Auditing Committee, and a Committee on Buildings and Grounds, who shall serve during the pleasure of the Board.

SEC. 4. The officers shall perform such duties as ordinarily appertain to their respective offices, and such other duties as the Board of Trustees may from time to time devolve upon them. The Treasurer shall give bond in such amount and with such surety as shall be approved by the Executive Committee, and shall disburse the funds of the Museum only in accordance with the directions of the Executive Committee, upon the signature and counter-signature of such officers as the Executive Committee shall empower thereto.

SEC. 5. The Executive Committee shall have full control of the affairs of the Museum, under the general supervision of the Board of Trustees.

ARTICLE III.

MEETINGS.

SECTION 1. In commemoration of the discovery of America by Christopher Columbus, the annual meeting of the corporate members shall be held on the 14th day of October in each year, except when that day falls on a Sunday, and then upon the Monday following. At such meetings the corporate members shall

transact such business as may properly come before the meeting. Special meetings of the corporate members shall be called at any time by the Secretary upon written request of twenty corporate members. In such case, thirty days' notice by mail shall be given to corporate members of the time, place and purpose of such meetings.

SEC. 2. Regular meetings of the Board of Trustees shall be held upon the 14th day of October, except when that day falls on a Sunday, and then upon the Monday following, and upon the last Monday of January, April and July of each year. Special meetings may be called by the President at any time upon reasonable notice by mail, and shall be called upon the written request of three Trustees. Five Trustees shall constitute a quorum.

ARTICLE IV.

AMENDMENTS.

SECTION I. These By-Laws may be amended at any regular meeting of the Trustees by a two-thirds vote of all the members present, provided the amendment shall have been proposed at the last regular meeting preceding, or shall be recommended by the Executive Committee.

HONORARY MEMBERS.

CHARLES B. CORY.

MARY D. STURGES.

EDWARD E. AYER.

HARLOW N. HIGINBOTHAM.

PATRONS.

ALLISON V. ARMOUR.

FREDERICK J. V. SKIFF.

WILLARD A. SMITH.

WILLIAM I. BUCHANAN.

FREDERICK W. PUTNAM.

CORPORATE MEMBERS.

ADAMS, GEORGE E.	HIGINBOTHAM, H. N.
ALDIS, OWEN F.	HUTCHINSON, CHARLES L.
ARMOUR, ALLISON V.	JACKSON, HUNTINGTON W.
ARMOUR, PHILIP D.	JONES, ARTHUR B.
AYER, EDWARD E.	KEITH, E. G.
BAKER, WILLIAM T.	KOHLSAAT, HERMAN H.
BARTLETT, A. C.	LATHROP, BRYAN
BLACK, JOHN C.	LEITER, L. Z.
BLAIR, WATSON F.	McCAGG, E. B.
BLATCHFORD, ELIPHALET W.	McCLURG, A. C.
BRYAN, THOMAS B.	McCONNELL, JOHN
BUCHANAN, W. I.	McCORMICK, CYRUS H.
BUCKINGHAM, EBENEZER	McNALLY, ANDREW
BURNHAM, DANIEL H.	MANIERRE, GEORGE
BUTLER, EDWARD B.	MITCHELL, JOHN J.
CLARK, JOHN M.	PATTERSON, ROBERT W.
CHALMERS, W. J.	PECK, FERD. W.
CHATFIELD-TAYLOR, H. C.	PETERSON, ANDREW
CRAWFORD, ANDREW	PETERSON, P. S.
CURTIS, WILLIAM E.	PEARCE, J. IRVING
DAVIS, GEORGE R.	REAM, NORMAN B.
EASTMAN, SYDNEY C.	RYERSON, MARTIN A.
ELLSWORTH, JAMES W.	SCHNEIDER, GEORGE
FITZSIMONS, CHARLES	SKIFF, F. J. V.
GAGE, LYMAN J.	STOCKTON, JOSEPH
GETTY, HENRY H.	SMITH, BYRON L.
GUNSAULUS, FRANK W.	SMITH, WILLARD A.
GUNTHER, C. F.	SPRAGUE, A. A.
HALE, WILLIAM E.	STONE, MELVILLE E.
HARPER, WILLIAM R.	WALKER, EDWIN
HATCH, AZEL F.	WALLER, R. A.
HEAD, FRANKLIN H.	WALSH, JOHN R.

DECEASED.

SCOTT, JAMES W.	BISSELL, GEORGE F.
PULLMAN, GEORGE M.	WILLIAMS, NORMAN

LIFE MEMBERS.

By the payment of five hundred dollars.

ADAMS, GEORGE E.	KING, JAMES C.
ALDIS, OWEN F.	KIRK, WALTER THOMPSON
ARMOUR, P. D.	MCCORMICK, MRS.
BLAIR, CHAUNCEY J.	MCCORMICK, CYRUS H.
BARTLETT, A. C.	MCCORMICK, HAROLD F.
BARRETT, MRS. A. D.	M McNALLY, ANDREW
BARRETT, ROBERT L.	MACKAY, JOHN W.
BARRETT, S. E.	MacVEAGH, FRANKLIN
BOOTH, W. VERNON	MITCHELL, J. J.
BURNHAM, D. H.	MURDOCH, THOMAS
BUTLER, EDWARD B.	* NEWELL, A. B.
CARTER, JAMES S.	OGDEN, MRS. FRANCES E.
CARTON, L. A.	ORR, ROBERT M
CHALMERS, WILLIAM J.	PEARSONS, D. K.
COOPER, FRANK H.	PIKE, EUGENE S.
CRANE, R. T.	PORTER, GEORGE T.
DEERING, CHARLES	PORTER, H. H.
DOANE, J. W.	PORTER, JR., H. H.
DRAKE, TRACY C.	REAM, MRS. CAROLINE P.
FARGO, CHARLES	REAM, NORMAN B.
FARWELL, WALTER	REVELL, ALEX. H.
FAY, C. N.	RUSSELL, EDMUND A.
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GARTZ, A. F.	SCHLESINGER, LEOPOLD
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HUGHITT, MARVIN	SMITH, ORSON
HUTCHINSON, C. L.	SPRAGUE, A. A.
INGALLS, M. E.	SPRAGUE, OTHO S. A.
ISHAM, MRS. KATHERINE	STUDEBAKER, CLEM.
JOHNSON, M. D., FRANK S.	STURGES, GEORGE
JOHNSON, MRS. ELIZABETH	THORNE, GEORGE R.
JONES, ARTHUR B.	TREE, LAMBERT
KEITH, ELBRIDGE G.	WELLING, JOHN C.
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	WOLFF, LUDWIG

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ARNOLD, J. B.

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BAKER, SAMUEL
BALDWIN, WILLIS M.
BANGA, DR. HENRY
BARNES, CHARLES J.
BARNHART, ARTHUR M.
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BLACKSTONE, T. B.
BLAINE, MRS. EMMONS
BLAIR, HENRY A.
BLISS, SAMUEL E.
BOAL, CHARLES T.
BONNEY, CHARLES C.
BOOTH, A.
BOTSFORD, HENRY
BOUTON, C. B.
BOUTON, N. S.
BRADWELL, JAMES B.
BRAUN, GEORGE P.
BREGA, CHARLES W.

BREMNER, DAVID F.
BROOKS, JAMES C.
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BROWN, WILLIAM L.
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CLIFF, CAPTAIN JOHN
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COMAN, SEYMOUR
COMSTOCK, WILLIAM C.
CONKLING, ALLEN
CONOVER, CHARLES H.
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COOLIDGE, CHARLES A.
COONLEY-WARD, MRS. JOHN C.
CORWITH, CHARLES R.
COWAN, W. P.
COX, ALFRED J.
CRANE, CHARLES R.
CUDAHY, JOHN
CULVER, MRS. CHARLES E.
CUMMINGS, E. A.
CURTIS, D. H.
DAL, JOHN W., M.D.
DAVIS, LEWIS H.
DAY, ALBERT M.
DAY, CHAPIN A.
DEERING, WILLIAM

DELANO, F. A.
DEMMLER, K.
DICK, A. B.
DILLMAN, L. M.
DODGE, G. E. P.
DUMMER, W. F.
DUNHAM, MISS M. V.
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DURAND, H. C.
DWIGHT, JOHN H.
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EDWARDS, J. A.
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FARNSWORTH, GEORGE
FEATHERSTONE, A.
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FISCHER, FREDERICK
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FOREMAN, OSCAR G.
FORSYTH, ROBERT
FRANK, HENRY L.
FRANK, MAX
FRANKENTHAL, L. E., M.D.
FRASHER, JOHN E. L.
FREER, NATHAN M.
FREYTAG, MORITZ
FULLER, O. F.
FÜRST, CONRAD
GANS, SAMUEL
GATES, J. W.
GAYLORD, FREDERIC
GIBBS, JAMES S.
GIFFORD, C. E.
GIFFORD, I. CUSHMAN
GLESSNER, J. J.
GOODRICH, A. W.
GORDON, EDWARD K.
GORMULLY, R. PHILIP
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GREY, CHARLES F.
GREY, WILLIAM L.
GRIFFIN, T. A.

GROSS, S. E.
GUION, GEORGE MURRAY
GURLEY, W. W.
HAMBLETON, C. J.
HAMILTON, I. K.
HANECY, ELBRIDGE
HANSON, DAVID N.
HARDING, AMOS J.
HARRIS, GEORGE B.
HARRIS, JOHN F.
HARRIS, N. W.
HASKELL, FREDERICK T.
HEATH, ERNEST W.
HELMER, FRANK A.
HENNING, FRANCIS A., M.D.
HERTLE, LOUIS
HINES, EDWARD
HITCHCOCK, R. M.
HOLDOM, JESSE
HOLT, GEORGE H.
HOPKINS, JOHN P.
HORNER, ISAAC
HOSKINS, WILLIAM
HOUGHTELING, JAMES L.
HUTCHINSON, MRS. B. P.
INGALS, E. FLETCHER
INGALS, EPHRAIM, M.D.
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JANES, JOHN J.
JEFFERY, THOMAS B.
JENKINS, GEORGE H.
JOHNSON, J. M.
JONES, J. S.
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KAVANAGH, CHARLES J.
KEEFER, LOUIS
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KEEP, ALBERT
KEITH, W. SCOTT
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KELLOGG, MRS. C. P.
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KIMBALL, GEORGE F.
KIMBALL, MRS. MARK
KIRCHBERGER, S. H.
KOEHLER, THOMAS N.

- LAFLIN, ALBERT S.
LAFLIN, GEORGE H.
LAFLIN, LYCURGUS
LAMB, CHARLES A.
LAMB, FRANK H.
LAWSON, VICTOR F.
LAY, A. TRACY
LEE, WALTER H.
LEFENS, THIES J.
LEIGH, EDWARD B.
LEITER, JOSEPH
LEWIS, JAMES F.
LINCOLN, ROBERT T.
LINN, W. R.
LLOYD, EVAN
LOEWENTHAL, B.
LOGAN, F. G.
LOMBARD, JOSIAH L.
LORD, J. B.
LOWDEN, FRANK O.
LOWTHER, THOMAS D.
LYON, THOMAS R.
LYTTON, HENRY C.

McCREA, W. S.
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MAYER, DAVID
MAYER, LEVY
MEAD, W. L.
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MERRYWEATHER, GEORGE
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MILLER, ROSWELL
MILLER, THOMAS
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MIXER, C. H. S.
MOORE, L. T.

MOORE, N. G.
MOORE, SILAS M.
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MORRIS, IRA
MORRIS, NELSON
MORRISON, JAMES W.
MOULTON, GEORGE M.
MULLIKEN, A. H.
MULLIKEN, CHARLES H.
MUNRO, WILLIAM

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NORTON, O. W.
NOYES, LA VERNE W.

OEHNE, THEODORE
ORB, JOHN A.
ORTSEIFEN, ADAM
OSBORN, HENRY A.
OTIS, L. B.

PALMER, MILTON J.
PALMER, PERCIVAL B.
PATTERSON, W. R.
PEARSON, EUGENE H.
PEASE, JAMES
PEASLEY, J. C.
PECK, CLARENCE I.
PECK, GEORGE R.
PEEK, W. H.
PETERS, HOMER H.
PETERSEN, GEORGE L.
PETERSON, WILLIAM A.
PIETSCH, C. F.
PINKERTON, W. A.
POND, IRVING K.
POPE, MRS. CHARLES B.
PORTER, MRS. JULIA F.
PORTER, WASHINGTON

RABER, P. W.
RANDALL, THOMAS D.
RAYNER, JAMES B.
REHM, JACOB
REID, W. H.
REW, HENRY C.
RIPLEY, E. P.
ROBINSON, J. K.
ROSENBAUM, JOSEPH
ROSENBERG, JACOB

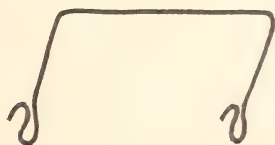
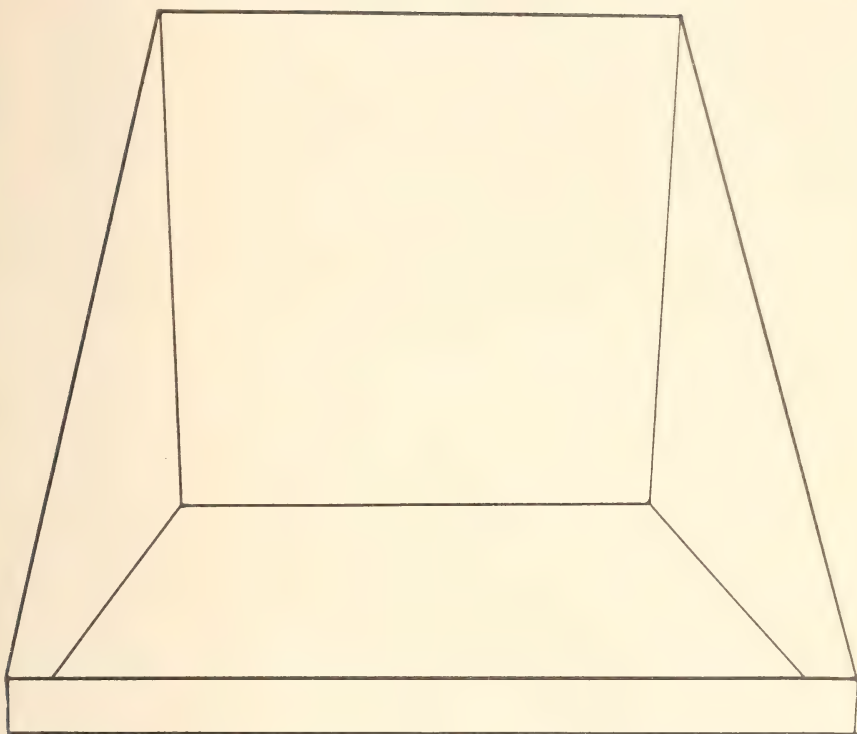
ROSENFELD, MAURICE
ROSENTHAL, OSCAR
RUMSEY, GEORGE D.
RUNNELLS, J. S.
RYERSON, MRS. MARTIN
SCHAFFNER, JOSEPH
SCHMIDT, GEORGE A.
SCHMIDT, DR. O. L.
SCHMITT, ANTHONY
SCHNEIDER, OTTO C.
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SCULL, HENRY
SEARS, JOSEPH
SEIPP, MRS. C.
SEIPP, W. C.
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SELLERS, FRANK H.
SELZ, MORRIS
SENN, MRS. N.
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SIMMONS, J. J.
SKINNER, THE MISSES
SMITH, F. B.
SMITH, FRANK J.
SMITH, HENRY A.
SMITH, JOHN C.
SMITH, O. C.
SMITH, ROBERT J.
SNOW, MISS HELEN E.
SOMERVILLE, R.
SOPER, ALEXANDER C.
SOPER, JAMES P.
SOUTHWELL, H. E.
SPENCE, MRS. ELIZABETH E.
SPOOR, J. A.
STANLEY, FRANK W.
STEELE, HENRY B.
STILES, JOSIAH
STOCKTON, JOHN T.
STRAUS, SIMON
STUART, ROBERT
SWIFT, G. F.

TEMPLETON, THOMAS
TILTON, MRS. L. J.
TOBEY, FRANK B.
TRIPP, C. E.
TRUDE, A. S.
TRUMBULL, PERRY
TURNER, E. A.
TYRRELL, JOHN
TYSON, RUSSELL
UIHLEIN, EDWARD G.
UNZICKER, OTTO
VIERLING, ROBERT
WACKER, CHARLES H.
WAIT, HORATIO L.
WALKER, GEORGE C.
WALKER, HENRY H.
WALKER, JAMES R.
WALKER, WILLIAM B.
WALLER, EDWARD C.
WARNER, EZRA J.
WATSON, WILLIAM J.
WEBSTER, GEORGE H.
WELLS, B. R.
WHEELER, CHARLES W.
WHEELER, FRANCIS T.
WHITE, A. STAMFORD
WHITEHEAD, W. M.
WHITEHOUSE, FRANCIS M.
WICKES, T. H.
WILLIAMS, SIMEON B.
WILLING, MRS. HENRY J.
WILSON, E. C.
WILSON, M. H.
WING, DR. ELBERT
WINK, HENRY
WOLF, FRED. W.
WOOD, JOHN H.
WOOD, S. E.
WOODCOCK, LINDSAY T.
WOOSTER, CLARENCE K.
YERKES, CHARLES T.
DECEASED.
PECK, MRS. MARY K.

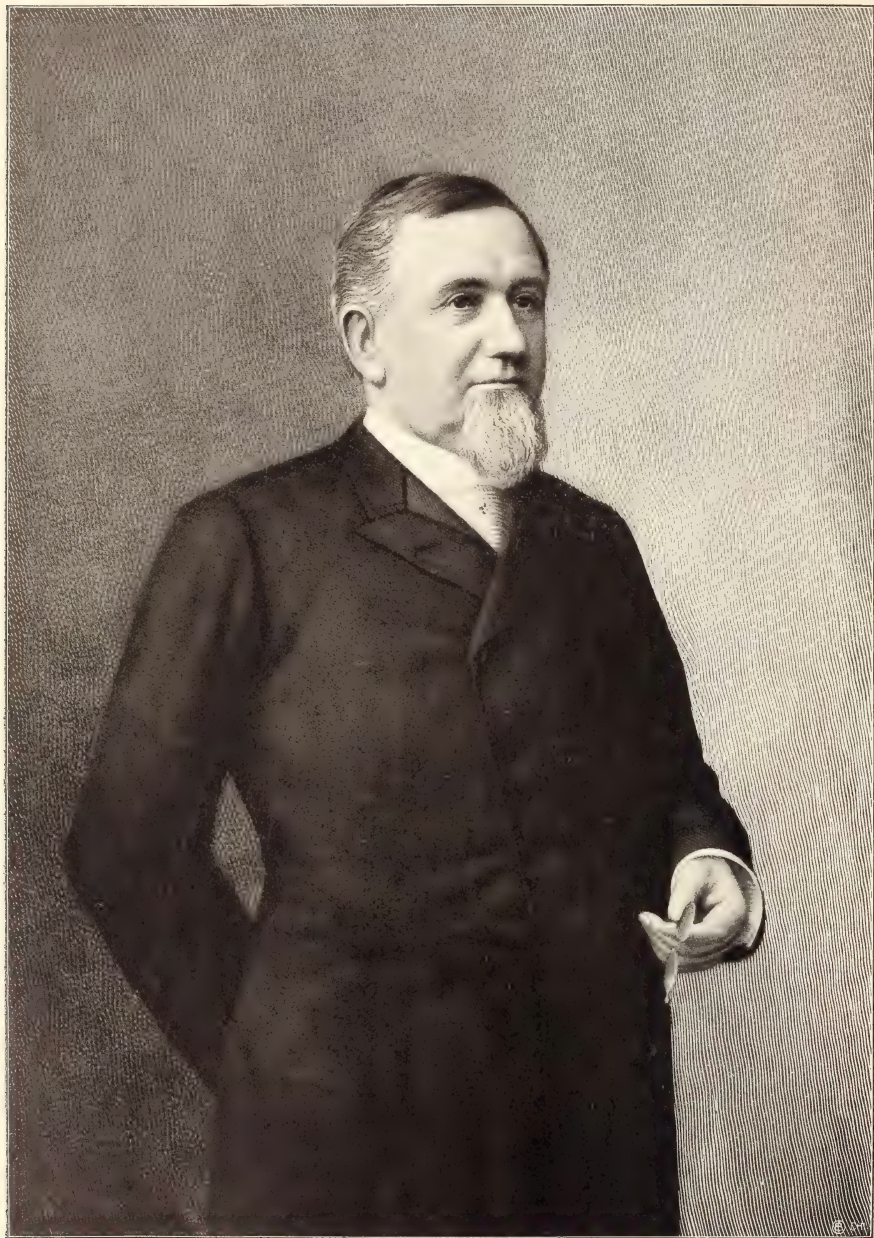
PL. XL. METAL TRAY AND LABEL HOLDER.

This sketch presents a device for exhibiting lump coal, or coal in broken fragments, or other friable substances. The form is that of a deep tray with two sides divergent, cut down in front to a narrow strip, the contents giving support to the label.

The tray is made of tinned iron, bound at the edges with wire and enameled a drab color outside and white inside.



METAL TRAY AND LABEL HOLDER FOR EXHIBITING FRAGMENTAL OR EARTHY SUBSTANCES.
DEPARTMENT OF GEOLOGY—FIELD COLUMBIAN MUSEUM.



THE LATE GEORGE M. PULLMAN,
A Benefactor of the Museum.

FIELD COLUMBIAN MUSEUM

PUBLICATION 52.

REPORT SERIES.

VOL. I, NO. 6.

ANNUAL REPORT OF THE DIRECTOR

TO THE
BOARD OF TRUSTEES

FOR THE YEAR 1899-1900.



CHICAGO, U. S. A.

October, 1900.

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THE BOARD OF TRUSTEES.

GEORGE E. ADAMS.

OWEN F. ALDIS.

EDWARD E. AYER.

WATSON F. BLAIR.

WILLIAM J. CHALMERS.

MARSHALL FIELD, JR.

HARLOW N. HIGINBOTHAM.

HUNTINGTON W. JACKSON.

ARTHUR B. JONES.

GEORGE MANIERRE.

CYRUS H. MCCORMICK

NORMAN B. REAM.

MARTIN A. RYERSON.

EDWIN WALKER.

DECEASED.

NORMAN WILLIAMS.

GEO. R. DAVIS.

OFFICERS.

HARLOW N. HIGINBOTHAM, *President.*

MARTIN A. RYERSON, *First Vice-President.*

NORMAN B. REAM, *Second Vice-President.*

HARLOW N. HIGINBOTHAM, *Chairman Executive Committee.*

GEORGE MANIERRE, *Secretary.*

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ARTHUR B. JONES.

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DIRECTOR.

FREDERICK J. V. SKIFF.

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GEORGE A. DORSEY, *Curator*.

S. C. SIMMS, *Asst. Curator Division of Ethnology*.

DEPARTMENT OF BOTANY.

C. F. MILLSPAUGH, *Curator*.

DEPARTMENT OF GEOLOGY.

O. C. FARRINGTON, *Curator*. H. W. NICHOLS, *Assistant Curator*.

ELMER S. RIGGS, *Assistant Curator Paleontology*.

DEPARTMENT OF ZOOLOGY, EXCEPT ORNITHOLOGY.

D. G. ELLIOT, *Curator*.

S. E. MEEK, *Assistant Curator*.

DEPARTMENT OF ORNITHOLOGY.

C. B. CORY, *Curator*.

THE LIBRARY.

ELSIE LIPPINCOTT, *Librarian*

RECORDER.

D. C. DAVIES.

ANNUAL REPORT OF THE DIRECTOR.

1899-1900.

To the Trustees of the Field Columbian Museum:

I have the honor to present a report of the operations of the Museum for the year closing September 30, 1900. Your Director has been absent from his post several months of the period covered by this report, and must rely more than usual upon the reports of the heads of departments for such information as is conveyed to you hereby. As will be apparent from the details following, very important improvements have been made, and owing to the personal attention given by the President to the executive work of the institution, the year records unusual activity and progress. An important action of the Executive Committee has been the abandonment of all the industrial and historical collections of the Museum. With the exception of the annex occupied by transportation, the halls heretofore occupied by the industrial arts have been or soon will be transferred to the use of the Department of Anthropology, and the material heretofore contained therein returned to the donor, presented to appropriate institutions or stored away for further consideration. In this connection it is well to note the distribution of the material, photographs, paintings, etc., in Columbus Memorial Hall to the Chicago Historical Society, the University of Chicago, the Newberry Library, and to a number of schools in the state; also the presentation by President Higinbotham of the collection of dressed and undressed skins of mammals, birds and reptiles that may be utilized for commercial purposes, to the Commercial Museum of Philadelphia. This collection, which had attracted considerable attention, had been purchased with other material from Tiffany & Company of New York by Mr. Higinbotham and presented to the Museum. The action of the Trustees above referred to rendered this material inappropriate under the scope adopted and it was returned to Mr. Higinbotham, who, as stated, presented it to a museum devoted to commercial ends.

STAFF OF THE MUSEUM.—The personnel of the staff remains practically unchanged. The resignation of Mr. Dieserud, Librarian of

the Museum, was accepted during the month of July, and Miss Elsie Lippincott was appointed as his successor. Mr. E. N. Guiret was appointed as Osteologist early in the spring, that post having been vacant over a year. No other changes occurred in the staff of the Museum.

INCOME AND MAINTENANCE.—The budget authorized by the Executive Committee provided for the sum of \$102,000 for the maintenance of the Museum for the year ending September 30, 1900. The amount expended was \$94,938, showing a balance of \$7,062 within the anticipated expenses. In addition to this amount \$25,924 was expended by the authority of the Executive Committee for collections, expeditions, etc., bringing the total expenditure for the year to \$120,862. Comparing the cost of maintenance with the sums used for like purposes in previous years, it is noticed there is quite an increase in the amount expended for general repairs of the building, including the tedious and expensive labor now in progress of strengthening the main floor. It is especially gratifying that, notwithstanding the unusual cost of repairs and improvements to the building, the funds have been found within the limits of the budget for maintenance, and there remains several thousand dollars of this fund yet to its credit for the year.

THE MEMBERSHIPS.—The number of annual members still decreases; twenty-nine resignations having been accepted during the year. This annual decrease in these memberships may, of course, be expected so long as no effort is made to maintain the integrity of the list, which effort would not be likely to give entire satisfaction for the reason that the Museum is so generous in the privileges extended to the public that there remains very little inducement for the payment of an annual subscription.

LECTURE COURSES—Two courses were given as usual in the autumn and spring, bringing the number of courses given by the Museum up to thirteen. The participation of Messrs. Harlan I. Smith, Stewart Culin and James Mooney in the last course was a gratifying feature, importantly connected as they are with kindred institutions in the east. The attendance upon these lectures has been steadily good, and in some instances the large number of students and teachers has been observed with much satisfaction. The willingness with which well-known instructors and lecturers participate, without compensation, in these courses is an evidence of their personal sympathy with the work as well as an indication of a growing confidence in the general good that is being accomplished in this community.

Following is the twelfth course, delivered in October and November, 1899:

Oct. 7.—“The Cliff Dwellers of Colorado, Utah, Arizona and New Mexico” (Illustrated).

Mr. E. H. Cooper, Denver, Colorado.

Oct. 14.—“Hawaii” (Illustrated).

Mr. R. J. Bennett, Chicago, Ill.

Oct. 21.—“A Cruise Among the Antilles—Porto Rico” (Illustrated).

Dr. C. F. Millspaugh, Curator, Department of Botany.

Oct. 28.—“A Cruise Among the Antilles—Cuba” (Illustrated).

Dr. C. F. Millspaugh, Curator, Department of Botany.

Nov. 4.—“Some Curious Insects” (Illustrated).

Mr. E. B. Chope, Assistant in Department of Zoology.

Nov. 11.—“Fishes and Fishing on the Pacific Coast” (Illustrated).

Dr. S. E. Meek, Assistant Curator, Department of Zoology.

Nov. 18.—“The Katcinas of the Hopi Indians” (Illustrated).

Rev. H. R. Voth, Missionary to the Hopi Indians.

Nov. 25.—“The Eskimo” (Illustrated).

Dr. George A. Dorsey, Curator, Department of Anthropology.

The following is the thirteenth course, delivered in March and April, 1900:

March 3.—“The Age of Steel” (Illustrated).

Mr. H. W. Nichols, Assistant Curator, Department of Geology.

March 10.—“Conditions of Life in Inland Lakes” (Illustrated).

Dr. E. A. Birge, Professor of Zoology, University of Wisconsin.

March 17.—“Gigantic Fossil Reptiles from the Jurassic of Wyoming” (Illustrated).

Mr. E. S. Riggs, Assistant Curator of Paleontology.

March 24.—“Primitive American Art with Illustrations Drawn Chiefly from Studies in Aboriginal Games” (Illustrated).

Mr. Stewart Culin, Director of the Museum of Science and Art, University of Pennsylvania.

March 31.—“Archæological Discoveries on the North Pacific Coast of America” (Illustrated).

Mr. Harlan I. Smith, American Museum of Natural History, New York.

April 7.—“Soyaluna, a Hopi Winter Solstice Ceremony. Stanley McCormick Expedition” (Illustrated).

Rev. H. R. Voth, Missionary to the Hopi Indians.

April 14.—“The Yellowstone National Park” (Illustrated).

Prof. J. P. Iddings, University of Chicago.

April 21.—“The Sand Dunes of Lake Michigan and Their Vegetation” (Illustrated).

Dr. Henry C. Cowles, University of Chicago.

April 28.—“Indian Tribes of the Great Plains” (Illustrated).

Mr. James Mooney, Bureau of Ethnology, Washington, D. C.

There are now on hand 2,022 slides, classified as follows :

Anthropology,	412
Botany,	498
Geology,	575
Zoology,	405
General,	132
	<hr/>
	2,022

PUBLICATIONS.—During the year ten publications were issued and also the second part of Prof. Cory's “The Birds of Eastern North America.” It is expected that valuable additions will be made to the Museum publications during the ensuing year, four important papers being now in preparation by the Museum staff. The system of distributing the publications remains the same as in the past except in the matter of return acknowledgments. A private mailing card is now inserted in each publication, to be returned as an acknowledgment instead of the paper form used heretofore. This form has demonstrated its usefulness economically, and has given general satisfaction both to the Museum and to the recipient.

The following is a list of the publications issued and a table showing their distribution during the year:

"The Birds of Eastern North America." Land Birds. Part II. Key to the Families and Species. By Charles B. Cory. Special edition printed for the Field Columbian Museum. 256 pages, edition 1,000.

Pub. 40.—Zool. Ser., Vol. 1, No. 16. "List of Mammals obtained by Thaddeus Surber, Collector for the Museum, chiefly in Oklahoma and Indian Territories." By D. G. Elliot. 13 pages, edition 1,000; illustrations 4 (half-tones).

Pub. 41.—Zool. Ser., Vol. 1, No. 17. "Notes on a Collection of Fishes and Amphibians from Muskoka and Gull Lakes." By S. E. Meek. 5 pages, edition 1,000; no illustrations.

Pub. 42.—Report Ser., Vol. 1, No. 5. "Annual Report of the Director to the Board of Trustees for the year 1898-99." 74 pages, edition 2,000; illustrations 14 (13 half-tones and one zinc etching).

Pub. 43.—Bot. Ser., Vol. 2, No. 1. "Plantæ Utowanæ." Plants collected in Bermuda, Porto Rico, St. Thomas, Culebras, Santo Domingo, Jamaica, Cuba, the Caymans, Cozumel, Yucatan and the Alacran Shoals. December, 1898 to March, 1899. By Charles F. Millspaugh. 110 pages, edition 1,000; illustrations 1 (zinc etching).

Pub. 44.—Geol. Ser., Vol. 1, No. 7. I. "New Mineral Occurrences." II. "Crystal Forms of Calcite from Joplin, Missouri." By O. C. Farrington. 21 pages, edition 1,000; 22 illustrations (two half-tones and 20 zinc etchings).

Pub. 46.—Zool. Ser., Vol. 3, No. 1. "Description of an Apparently New Species of Mountain Goat." By D. G. Elliot. 5 pages, edition 1,000; 5 illustrations (half-tones).

Pub. 47.—Zool. Ser., Vol. 3, No. 2. "The Genus *Eupomotis*." By S. E. Meek. 8 pages, edition 1,000; no illustrations.

- Pub. 48.—Bot. Ser., Vol. 1, No. 6. "Plantæ Insulæ Ananasensis. A Catalogue of Plants Collected on the Isle of Pines, Cuba, by Don Jose Blain." By Charles F. Mills-
paugh. 18 pages, edition 1,000; no illustrations.
- Pub. 49.—Zool. Ser., Vol. 1, No. 18. Index to Vol. 1, Nos. 1 to 17.
14 pages, edition 1,000; no illustrations.
- Pub. 50.—Bot. Ser., Vol. 2, No. 2. "Plantæ Utowanæ." Plants
collected in Bermuda, Porto Rico, St. Thomas, Cule-
bras, Santo Domingo, Jamaica, Cuba, the Caymans,
Cozumel, Yucatan and the Alacran Shoals. Decem-
ber, 1898, to March, 1899. By Charles F. Millspaugh.
23 pages, edition 1,000; illustrations 29 (zinc etch-
ings).

RECIPIENTS—OFFICIAL:

Trustees,	15
Staff,	10
Corporate Members,	3
Honorary Members,	3
Annual Members,	350

RECEIVED PUBLICATIONS IN ALL DEPARTMENTS:

	Domestic.	Foreign.
Individuals,	9	9
Universities, Schools and Colleges,	57	37
Museums and Gardens,	6	37
Academies and Institutes,	30	18
Societies,	24	49
Libraries,	59	27
Government and State Departments,	10	2
Journals,	11	16

RECEIVED PUBLICATIONS IN ONE OR MORE DEPARTMENTS:

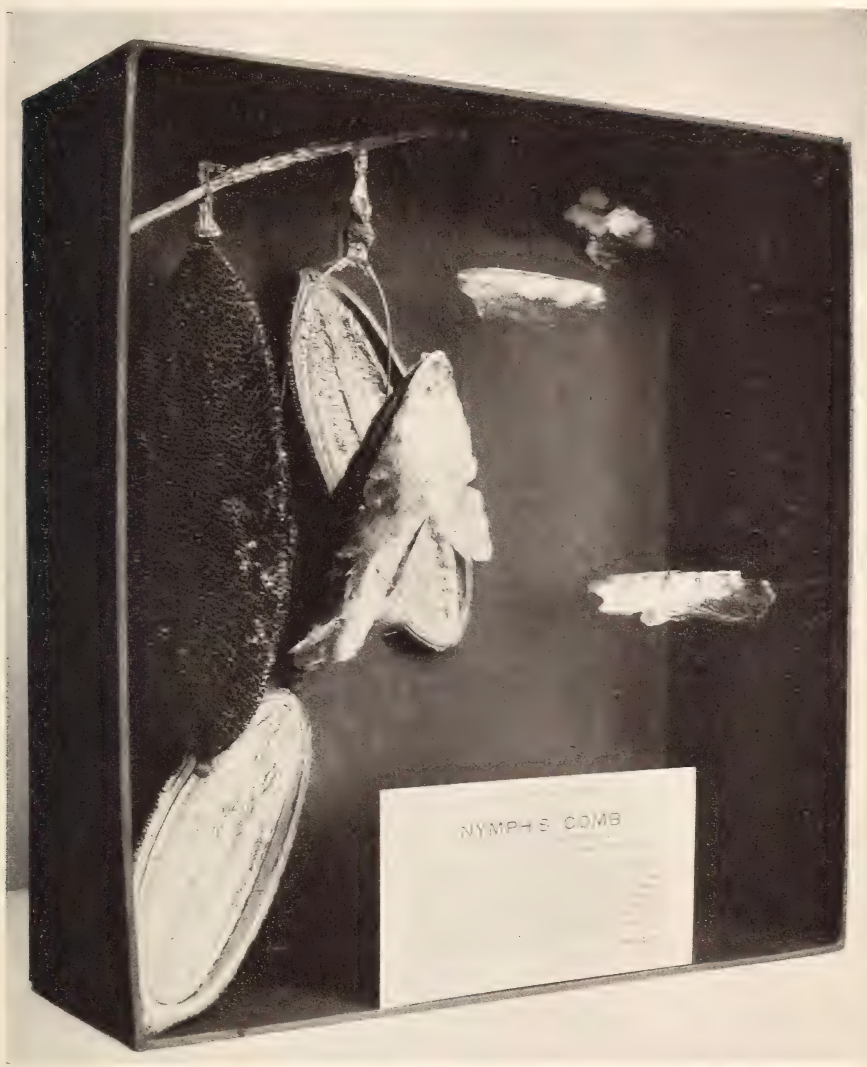
	DOMESTIC.								
	*A.	B.	G.	H.	I.	A.	O.	T.	Z.
Individuals,	79	55	109	5	..	10	1	37	
Universities, Schools and Colleges,	3	27	10	7	2	1	1	28	
Museums and Gardens,	9	6	6	..	..	..	..	7	
Academies and Institutes,	3	2	2	1	7	..	2	1	
Societies,	11	13	11	13	3	4	4	12	
Libraries, . . . . .	..	2	1	18	..	..	..	1	
Journals,	12	9	6	..	..	2	2	4	
Government and State Departments,	1	8	16	4	..	..	..	14	

*A., B., G., H., I. A., O., T. and Z. denote Anthropology, Botany, Geology, History, Industrial Arts, Ornithology, Transportation, and Zoology.

PL. XLII. INSTALLATION SEED DISSEMINATION.

Illustrating the dissemination of seed by wind.

A unit system of black paper boxes arranged in juxtaposition in upright cases.



INSTALLATION ILLUSTRATING SEED DISSEMINATION—FIELD COLUMBIAN MUSEUM.

	FOREIGN.							
	*A.	B.	G.	H.	I.	A.	O.	T. Z.
Individuals,	50	27	51	..	..	5	..	21
Universities, Schools and Colleges, ..	..	..	5	..	..	1	..	9
Museums and Gardens,	10	5	5	..	..	1	..	5
Academies and Institutes,	3	..	7	..	..	1	..	..
Societies,	12	5	18	..	..	3	1	25
Libraries,	1	..	..	..	..	..	..	..
Journals,	12	2	5	..	..	3	..	2
Government and State Departments, ..	5	13	..	..	..	..	..	6

In the matter of the exchange of contemporaneous publications, the Director of the Museum requests that all publications from other Institutions, Societies, Organizations, or individuals intended to be given to this Museum, in exchange for its publications or otherwise, be directed to the Library of the Field Columbian Museum and not to the departments, or to any individual upon the staff.

THE LIBRARY.—The accessions in the library during the year were 881 volumes and 2,360 pamphlets. Most of these acquisitions were received in exchange for the Museum publications. It is gratifying to be able to state that not only have the Museum correspondents promptly sent their current publications, but in many instances they have readily volunteered to supply back numbers, in order to complete sets. A demand for more standard works of reference relating to the departments represented in the Museum still remains. The most notable accession to the library was the splendid gift from Mr. Edward E. Ayer of his carefully selected Ornithological library, numbering approximately 400 volumes, many of them rare and all of the highest value. Special book cases were built for their installation, and also a special standing case for the set of Audobon. The author and shelf list catalogues are kept up to date. In the General Library much labor has resulted from the almost constant shifting of books to make room for accessions. To provide required space in the central room 348 books and pamphlets on Economic Geology were transferred to the branch library located in the Department of Geology. Three hundred and eighty books have been received from the binders. There are now 23,000 titles in the John Crerar Library Duplicate Catalogue. The total number of volumes and pamphlets in the library at this time reaches 24,349, distributed as follows:

	Books.	Pamphlets.
General Library,	8,124	10,519
Department of Anthropology,	178	85
Department of Botany,	402	244

*A., B., G., H., I. A., O. T. and Z. denote Anthropology, Botany, Geology, History, Industrial Arts, Ornithology, Transportation, and Zoology.

	Books.	Pamphlets.
Department of Geology,	1,463	2,687
Department of Ornithology,	368	....
Department of Zoology,	279	....

RECORDS.—No changes have been made in this department, the original system adopted being still maintained. The abandonment of the Department of Columbus Memorial entailed an unusual amount of labor. Receipts were obtained for all of the material distributed and the records show where and when each specimen was distributed. The total number of specimens accessioned during the year has been 64,921 and classified as follows :

	No. of Accessions.	No. of Specimens.
Gifts,	125	5,783
Loans,	1	15
Exchanges,	36	4,348
Collected,	58	11,216
Purchase,	65	43,558
Deposit	1	1
	<hr/> 286	<hr/> 64,921

DEPARTMENTAL CATALOGUING, INVENTORYING AND LABELING.—With a few minor exceptions all the specimens in Geology are now numbered and catalogued and records of them are filed. Newly descriptive labels were provided for the series of framed enlargements of the cuts illustrating mining in the sixteenth century. Several hundred large specimens which had been imperfectly labeled were provided with descriptive labels. Many single collections were also fully labeled, of which might be mentioned the Mazon Creek fossils, local Niagara fossils and dinosaur remains. In the Department of Zoology an unusual number of labels has been written, the total exceeding those of any previous year. The system of cataloguing in the Department of Botany has been considerably improved by the introduction of a new system requiring but little clerical work to keep it up to date. In this connection the report of the Curator of the Department of Botany is given in full :

“The method of handling incoming material is as follows : Upon receipt of a collection a blank form of accession giving the date of receipt, collector's name, locality represented, number of specimens and how acquired, is filled out and deposited with the Recorder of the Museum. The collection is then stored away until its turn for installation. When laid out for mounting, the labels are permanently attached to the sheets, the plants are placed upon them, and all are superimposed in an open-ended box ready for consecutive handling by the mounter. After mounting, the sheets are arranged in the

order of the collector's numbers and so entered in the record volume then in use, the corresponding serial catalogue number of the volume being placed upon each sheet as entered. (The catalogue numbers commence at unity in Vol. 1, and continue unbroken through all succeeding volumes.) Should a previous collection, or even a single specimen, made by the same collector in the locality have already been entered in the catalogue, the last entry of that collection is referred on to the first entry of the new lot, a rubber stamp reading: 'To Vol. . ., page . .,' being used for this purpose, thus rendering the catalogue of each collector's material virtually consecutive. Immediately upon the completion of the entry an index and is made out, or the old card changed, to include the new lot. The form of the card is as follows:

MILLSPAUGH, DR. C. F.		— Begins —		— Ends —		Total Specimens.
Locality.		Vol.	Page.	Vol.	Page.	
New York,		2	80	22	70	895
West Virginia,		5	121	22	70	713
Yucatan, Mexico,		10	84	16	89	307
Cuba, West Indies,		5	127	16	90	152
St. Thomas, West Indies,		16	19	16	29	202
Porto Rico, West Indies,		16	7	16	90	352
Arizona,		18	81	18	88	154
Jamaica, West Indies,		16	45	16	90	147
Grand Cayman, West Indies,		16	62	16	90	173
Forward,						

"The two last columns are filled out in pencil, as they are subject to change at any time. In association with these 'Collector's Cards' another set is kept for the geographic localities as follows:

CUBA, WEST INDIES.		Vol. Page.		Specimens.
Collector.				
Wright, Charles,		4	166	62
Wright & Sauvalle,		20	146	6
Combs, Robert,		4	34	615
Millsbaugh, Dr. Charles F.,		5	127	152
Schott, Dr. Arthur,		6	179	50
Torralbas, Jose,		20	167	1
Exposition, W. C.,		2	90	84
Matthews, G. F.,		18	59	1
Rugel, F.,		20	145	1
Forward,				

"On these cards only the last column is kept in pencil, it being the only one subject to change. The first column refers to the initial entry of specimens received from each collector, any later additions being referred to at the end of the preceding lot entered.

The work of keeping up such a series of cards is infinitely slight, while the status of the collections is thereby positively known, and ready reference to all collectors and localities represented in the collections is at the hand of any one desiring to use the material. As to the time required to keep such systematic records no details can be given, but the fact that over 50,000 specimens have been mounted and distributed, and over 80,000 recorded, by two persons in five years, while attending to the various duties of this department, will serve to give some idea of this work."

The year's work in the Museum on catalogues and inventorying is shown in detail as follows :

DEPARTMENT.	No. of Record Books.	Total No. of Entries to Sept. 30, 1900.	Entries during 1899-1900.	Total No. of Cards Written.
Anthropology, . . .	20	41,663	9,372	42,291
Botany,	31	81,810	12,070	2,600
Geology,	11	26,170	4,214	6,000
Library,	5	24,249	4,760	12,500
Ornithology,	3	11,069	.....	.....
Photography, . . .	4	6,392	1,466	.....
Zoology,	20	23,238	1,936	11,600

ACCESSIONS.—Very important accessions have been received by the Museum during the year. The most notable in the Department of Anthropology were the Perrine collection, from the quarry sites of Union County, Illinois, containing many of the finest chipped and polished stone implements ever brought together; a collection of over 1,000 objects from prehistoric graves in Chile, presented by Mr. Cyrus H. McCormick; a large collection from the Swiss Lake dwellings, consisting of a fine series of ornaments, utensils, bronze, bones, stones, etc., presented by Vice-President Ryerson; over 3,000 objects illustrating the archæology and ethnology of the Hopi, being the result of the four Stanley McCormick expeditions; and a collection of 2,000 ethnological specimens from various tribes in the western states, acquired by the Museum expeditions. The purchase of the Patterson herbarium containing 30,000 specimens of North American plants was a most noteworthy contribution to the Department of Botany. A series of selected duplicates containing 1,018 specimens, representing the collections of Miss Eastwood in California and Colorado, was also a highly prized addition. The sets of plants newly collected by Messrs. Clute, Heller, Poland, Pringle and Ricksecker were also purchased. Most of the accessions in the Department of Zoology were secured by the Museum's collector in the field. A Canon Diablo meteorite, weighing 76 pounds, from the Edward E.

Ayer Pioneer Hose Company of Phoenix, Arizona; specimens of the Allegan, Oakland and St. Genevieve County meteorites; representative series of quartz geodes of the Keokuk beds; the collection of fossil dinosaurs obtained by Assistant Curator Riggs, and a representative series of cave formations obtained by Curator Farrington, have been added to the collections in the department of Geology. Through the generosity of Mr. W. J. Chalmers, funds were provided which enabled the department to prepare a collection of crystals of the United States minerals for exhibition at the Paris Exposition. At the close of the exposition the collection will be returned to the Museum. It was awarded a silver medal.

EXCHANGES.—This system of obtaining material is still found advantageous, and exchange relations have been sustained with an increased number of institutions both at home and abroad during the year. Amongst such institutions may be mentioned the following: The British Museum, London; the Free Museum, Liverpool; Grey Herbarium, Cambridge; Hof Museum, Berlin; the Botanical Gardens, Natal, South Africa; the Institute of Mines, St. Petersburg, Russia; Hope Botanical Gardens, Jamaica; besides a number of prominent individual collectors. The number of specimens sent in exchange during the year was 1,596, representing 21 transactions. The number of specimens received in exchange was 4,348, representing 28 transactions.

EXPEDITIONS AND FIELD WORK.—An unusual amount of work has been done during the year in the field. The following is a list of the expeditions:

Locality.	Collectors.	Material.
Ozark Mountains, Arkansas,	H. W. Nichols, . . .	Zinc Ores.
Six Nation Reserve, Canada,	S. C. Simms, . . .	Ceremonial Paraphernalia, Domestic Utensils, Yarns, etc., etc.
Pacific Coast States, . . .	George A. Dorsey, .	Ethnological material from Shoshone and other stocks.
Union County, Illinois, . .	Dr. W. A. Phillips, .	Aboriginal quarry and Shop site material.
Western Colorado,	E. S. Riggs,	Fossil Dinosaurs.
Muskoka Lakes, Ontario, Canada,	S. E. Meek,	Fishes, Reptiles, Insects and Mammals.
Southern Indiana,	O. C. Farrington, .	Cave formations.
Ontario, Canada,	S. E. Meek,	Fishes, Reptiles, Insects and Mammals.

Locality.	Collectors.	Material.
Little Lower Colorado River, Arizona,	J. A. Burt,	Archæological material, Exploring prehistoric Hopi ruins.
Province of Tusayan, . . .	Charles L. Owen, . .	Archæological material from prehistoric Hopi ruins.
Little Lower Colorado River, Arizona,	J. A. Burt,	Archæological material, Exploring prehistoric Hopi ruins.

In connection with field work, emphatic and grateful mention should be made of the valuable aid received from Mr. Stanley McCormick for continuing the work among the Hopi Indians. The Curator of the Department of Zoology says: "The value of field work has never been more thoroughly demonstrated than during the past year, when in the Department of Zoology, of the total accessions more than one-half were acquired by collectors in the field. The work of the department covered Muskoka Lakes, Ontario, New Brunswick and Quebec, Canada, and Florida. At the present time the department has but one collector in the field, while several collectors in different parts of the United States could be employed with great advantage. Many of our mammals are annually becoming scarcer and more difficult to obtain, and of these the Museum has yet to acquire a large number. Of many of these sufficient should be obtained for special installation in groups with requisite accessories, and the only method of procuring the specimens in the condition and of the age required is to seek them in their habitat." The Curator of Anthropology says: "The event of unusual importance has been the additional interest manifested in the department by the gift of Mr. Stanley McCormick of \$5,400 for the purpose of making more complete the Hopi exhibit. Under this fund four expeditions have been undertaken. Assistant Burt spent December and January in the exploration of several Hopi ruins along Little Colorado River, Arizona, and as a result the exhibits showing the ancient life of the Hopi have been increased by over 300 fine specimens of pottery, bone, stone, shell, and textile fabrics. Part of this collector's time was spent in examining ruins hitherto not represented in scientific museums, and while the full significance of his discoveries is not yet determined, it is safe to say that new factors have been added to our knowledge of the early movements of certain Hopi clans. The second McCormick expedition was that of the Curator and Mr. Voth in December to six of the Hopi pueblos, at which time notable additions



HOPÍ SHRINE AT CORN ROCKS, MIDDLE MESA—STANLEY MCCORMICK EXPEDITION

were made to the collections illustrative of the modern life of their occupants. While these additional specimens cover nearly every phase of activity, of special interest are the series of rare dolls, masks, prayer-sticks and pipes. The third McCormick expedition was in charge of Assistant Burt, who spent two months in completing investigations begun earlier in the year on the lower Little Colorado River, Arizona. As a result of this expedition a large amount of material was added from graves and house ruins of the prehistoric Hopi, thus extending the collections into a hitherto unexplored region. The fourth McCormick expedition was in charge of Assistant Owen, who left Chicago early in May and is at present in the field, it being expected that he will not return until early in December. The object of this McCormick expedition is to make a careful and extensive exploration of about fifteen Hopi ruins, eight of which have never before been disturbed. It is too early yet to predict the final result of this expedition, but it is confidently expected that over 2,500 objects will be added to the already extensive prehistoric Hopi collections and that our knowledge of the early distribution of the Hopi will be materially increased. As a result of the work done up to the present time over forty boxes of material have been received by the Museum." The Curator of the Department of Geology says: "In continuation of the work of collecting zinc and lead ores for the Paris Exposition, Assistant Curator Nichols spent several weeks in the early part of the year in the Ozark Mountains of Arkansas visiting the principal mines of the region. A representative series of ores was secured, which will revert to the Museum after the exposition. In the spring two months were spent in Paris by the Curator under appointment as Honorary Mineralogist to the Commissioner General of the United States. Opportunity was here afforded to study methods of installation and the mineral products of various countries. The work of collecting fossil dinosaurs was continued during the summer by an expedition made to Colorado by Assistant Curator Riggs and Preparator Menke. The locality worked was one hitherto unknown, but the result of the summer's visit proved most satisfactory. One leg bone found, probably a humerus, was six feet ten inches in length, exceeding by several inches any such bone ever found before and giving proof of the existence of an animal of the dinosaur type larger than was ever before described. Several vertebræ, ribs and pelvic bones of the same individual were also found. Remains of somewhat smaller dinosaurs were also secured, chiefly vertebræ and bones, including one nearly complete fore leg. About seventy negatives of quarry and landscape views were taken. In addition a representa-

tive collection of the snake and lizard fauna of the region was made and a few invertebrate fossils obtained. The courtesy of the officials of the Atchison, Topeka and Santa Fe and of the Denver and Rio Grande railroads deserves grateful acknowledgment in connection with the work of this expedition. During the month of August the Curator visited Wyandotte, Marengo and several other caves of southern Indiana, for the purpose of securing a representative series of cave formations. By the kind permission of the cave owners, and assisted by the courtesy of officials of the Chicago, Indianapolis and Louisville Railroad, a large amount of material was secured. The total number of specimens obtained was about 300, mostly stalactites and stalagmites, remarkable in many instances for their size and beauty. The Curator of the Department of Botany says: "The only field work carried on has been that of Preparator Lansing, who has continued, under the supervision of the Curator, his collection of the plants of the 'Lake Chicago Basin,' in which he has secured an addition of 512 specimens, including many rare local species, and has continued his notes on the region. This work is particularly important, as not many years hence nearly the whole distinctive plant life of the section under study will become extinct through the drainage and reclaiming of the land and the extension of the city of Chicago and surrounding suburban towns. The Curator has made two extended visits to the herbarium of the Gray Botanical Gardens at Cambridge, Mass., and that of the New York Botanical Garden, for the purpose of comparing new material with specimens, and securing drawings, tracings, and descriptions of type specimens in these institutions."

INSTALLATION, REARRANGEMENT AND PERMANENT IMPROVEMENTS.—The capacity of the mechanical force has been fully tested this year, for besides the routine work for which the force is maintained, an extraordinary amount of new work has been performed. The whole building requires constant attention, and the carpenters and painters could be kept steadily employed on general repairs if no more important work seemed to demand their labor. While the building is meeting the demands upon it most remarkably, and is in a state of preservation that no one anticipated could be maintained for five years after the close of the exposition, yet it is gradually failing, and the greatest watchfulness is required to anticipate growing weaknesses and to foresee necessary repairs. At the request of the president, D. H. Burnham & Co., the well-known architects, made a careful examination of the building, followed by a report in writing containing valu-



CHALMERS' COLLECTION OF CRYSTALS OF UNITED STATES MINERALS—EXHIBITED AT PARIS EXPOSITION OF 1900—FIELD COLUMBIAN MUSEUM.

able suggestions; the most important being that the carrying capacity of the main floor should be increased and the supports under the same strengthened. This work is in progress at the date of this report. The exterior of the building has received attention from the plasterers and painters; the improved appearance, as compared with that of the previous year, being noticeable. The roof sections resist the varying temperature and excessive rain and snow fall, wind pressure, etc., in a surprising manner, although of course it is a fact that the roof has been almost entirely reconstructed since the close of the exposition in 1893. One hundred and fifty dollars has been expended for standpipe to facilitate extinguishing fire in the dome. The year has witnessed the construction of much needed additions to the offices and laboratories of the curators of the different departments. In the Department of Anthropology a two-floor general office and workshop have been constructed, constituting, as a matter of fact, one of the most admirable improvements that have been made in the Museum. The laboratory in this department has also been extended, thus securing an entire area of 1,800 square feet. In the Department of Botany the work, aside from the changes made necessary in rearranging and adjusting to provide room for Zoology, consists entirely of the work in the Herbarium, additional floor space being acquired for this by building a gallery floor just south of the Curator's office, and on the east side of the North Court. This room adds about 540 square feet. Sixteen cases have been added to accommodate the incoming specimens. For the Department of Zoology, the laboratory constructed along the entire length of the South Gallery of the South Court has been assigned, for the present at least, to the Assistant Curator of Ichthyology. In the Department of Geology the demands of the Division of Paleontology for more working area has caused the reduction of the space occupied by the Library and the removal of a large number of books to the office of the Curator. Further facilities for working in this department must be provided, however, for the present space is most apparently inadequate.

The Curator of the Department of Anthropology reports as follows regarding the installation work in that department: "The installation of Halls 16 and 17 is completed and they are now devoted entirely to the Hopi Indians of Arizona. The contents of these two very interesting and instructive halls are due almost exclusively to the generosity of Mr. Stanley McCormick, whose purchase of the Voth collections was noted in my last report. Owing to the provision of Mr. McCormick's gift, the services of Mr. Voth were continued until May of this year. This made possible not only a very complete

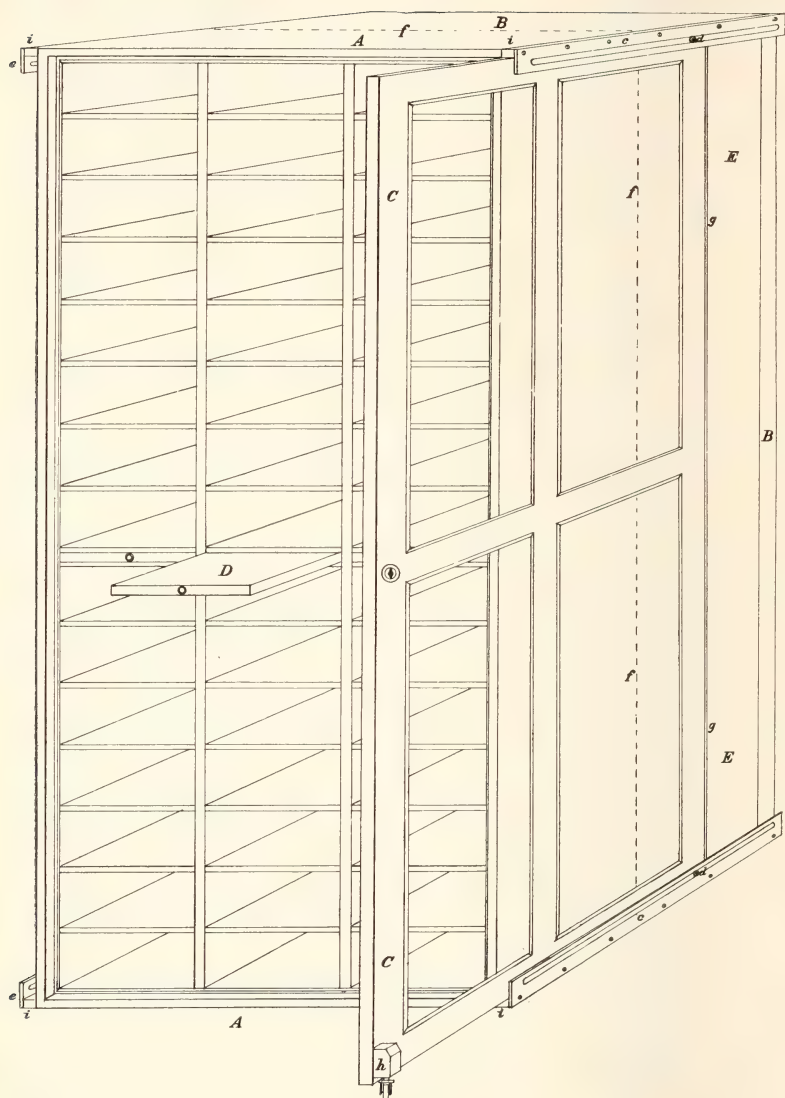
labeling of the specimens, but the preparation of additional altars. As a result the two halls contain an unrivaled collection of Hopi ethnological material; the following altars: Snake, Flute, Antelope, Powalawu, Katcina, Powamu, Marau, Ooqolto, Soyol; the Ballulukonti screen; and the following groups: House group of five figures, Rabbit hunter, Hemis and Ana Katcinas of two figures each, with two figures in the Soyol altar scene, and one in the Ooqolto altar case. In the work of installation the year has been productive of much that is of a progressive nature, and one feature of the work is characteristic of the more recent trend of development in the Museum as a whole. Allusion is made to the fact that Halls 8 and 9, which since the establishment of the Museum have contained the material transferred from the exposition and known as Columbus Memorial, have been emptied of their contents and are now being installed with purely anthropologic collections. Hall 9, one of the four largest in the building, is already installed with the Egyptian collections, while Hall 8 and the hall made vacant by the transfer of the Egyptian collection are to be devoted to the continually increasing collections illustrating the culture of the more primitive non-American races. The two halls devoted to the ethnology of the northwest coast of America have also been dismantled, the collections having been carefully examined and the objects compared with collectors' original lists, and have been reinstalled in new cases in the same halls, to which will be added four ethnic groups, for which casts have already been made, illustrating certain phases of the domestic and religious life of this very interesting and complicated region." The Curator of the Department of Geology reports as follows: "The large piles of loose ore which formerly occupied the floor of Hall 72 have been removed. In their place a large central case and two pyramids have been substituted. A wall case has also been put in position against the north wall. The large ore specimens formerly piled along the walls have been installed in these cases and upon the pyramids, thus giving the hall a much neater appearance and insuring protection of the specimens. Thorough identification and cleaning of the specimens has been performed in connection with their reinstallation. A large wall case for the accommodation of specimens formerly piled along the wall has been added to Hall 79, and all of the specimens in the hall except a few of the largest are now neatly cased. Several of the collections in the hall have been rearranged to secure better lighting and more orderly grouping, and the specimens have been re-identified and cleaned. The collection of rocks and fossils accompanying petroleum, Hall 71, has been rearranged, some new material



HALL 59 — MESOZOIC FOSSILS — FIELD COLUMBIAN MUSEUM.

added and the whole fully labeled. The interiors of several cases in this hall have been repainted. The collection of rocks of the Saarbrücken coal fields has been transferred to Hall 70 (coals and hydrocarbons). The use of a base for the installation of this collection which slopes from the center to two sides of the case has proved most satisfactory in the way of securing good lighting of the specimens. It is intended to substitute frequently such bases for the pyramids hitherto employed. In the place left vacant in Hall 66 by removal of the above-mentioned collection, the collection of rocks accompanying the iron ores of Lake Superior has been installed. The large map in Hall 62, showing localities of meteorite falls in the United States, has been brought up to date. New relief maps obtained by gift or purchase have been placed in position in Hall 60, space for their exhibition being secured by the removal of several wall maps which had less value. The collection of dinosaur bones made by the Wyoming Expedition of last year was cleared from the matrix and made ready for exhibition during the winter months. To provide for exhibition of the specimens, additional floor cases were placed in both Halls 36 and 59, as well as a base for mounting a hind leg. The specimens of *Dinosaur* remains now on exhibition in these halls include a hind leg and portion of the pelvic girdle of *Morosaurus*; a series of sixteen caudal vertebræ, reaching a total length of fifteen feet, of *Diplodocus*; a scapula and coracoid over five feet in length of *Morosaurus*; a femur of *Diplodocus* of about the same length and many miscellaneous vertebræ and pelvic and leg bones of *Diplodocus*, *Brontosaurus* and *Creosaurus*. A large slab of reptile tracks from Turner's Falls, Massachusetts, has been framed to insure its preservation, and placed in position in Hall 36. The exteriors of the floor cases in Hall 35 have been repainted. The laboratory of vertebræ paleontology has been enlarged by adding to it space formerly occupied by the departmental library, the book-cases from the latter having been transferred to the office. The equipment of this laboratory has been further increased by the addition of a turning lathe, bench, and sink with running water. To the departmental store-room a stack of storage trays and a mineral trimmer have been added, the latter proving especially serviceable. The temporary sheet iron stack leading from the furnace to the assay room having become worn out, a permanent brick stack has been constructed. At the same time a solid stone floor was laid and a new pot furnace for making small crucible assays built." The Curator of the Department of Botany in the prosecution of his notable work in the herbarium, extensions to which have been necessary during the year, says:

“The steady influx of specimens rendered an increase of space for cases an urgent necessity early in the year, and an extension 30 x 18 feet was planned and built over the east gallery adjoining the Curator’s office. This was finished and ready for occupancy early in May. It has three large north windows, and accommodates eighteen herbarium cases of the new construction described below, twelve of the old Bebbian cases, two special research tables and a long distributing table as well. The herbarium now has a total of sixty-eight cases, containing in all 1,744 pigeon-holes. Through this enlargement the storage room was freed of much accumulated material, and its space became available for systematic arrangement. This room now contains, besides the mounting table and accessories, a continuous rack bearing sixteen large tin cases of fifteen pigeon-holes each for the poisoning and storage of duplicates preparatory to their distribution, and eighteen similar cases of trays for the storage of the larger fruits and seeds pertaining to the herbarium sheets. All of the cases in the herbarium from its inception have been constructed upon a principle that renders them as nearly air-tight as possible. The interiors are so arranged that a two-inch space exists between the face of the pigeon-holes and the door, and a like space between the perpendicular stops at their back and the back of the case itself. By this means internal circulation is complete, and as much insectifuge as may be deemed advisable can be thrown through between the stops, where it is retained free of the pigeon-holes at the bottom of the case. Here also all plant detritus automatically collects with the withdrawal and insertion of the plant fascicles as they are used. A half round groove, one-quarter of an inch deep, is run completely around the inner face of the door frame, which fits over a like bead on the inner stop; this renders the cases insect and dust proof. The doors are glass paneled, affording a comprehensive view of the contents of each case, thus avoiding the necessity of referring to an index when locating the orders. In the earlier cases two semi-circular spaces were cut from the face edge of the shelves, in order that the fascicles of plants might be readily grasped for withdrawal by one or both hands. This method is, however, open to strong objection, as the frequent grasping of the bundles breaks the plants contained and soils the genus covers as well. In order to avoid this the following scheme, converting each pigeon-hole into a drawer, has been adopted: Sheets of heavy straw-board, one inch longer than the depth of the pigeon-holes and slightly narrower, were procured, and a strip of black muslin two inches wide firmly glued on the face of one end. The reverse side was then scored half through one inch



HERBARIUM CASE—(SEE PAGE 451)—FIELD COLUMBIAN MUSEUM.

from the edge and parallel to it, and the end bent downward, thus forming a flap dropping over the face edge of the pigeon-hole. These 'slides' are placed under the fascicles in each pigeon-hole, and when pulled forward by the drop, bring the contents forward for inspection. The drops of the slides may be left blank, or order, section, or genus labels may be pasted upon them as desired. The facility with which the contents of the pigeon-holes are consulted through the use of these slides has been a daily source of comfort and a great saving of time and wear. These cases have, however, the great fault of all herbarium cases—the nuisance of swinging doors. To overcome this the Curator devised the following form, arranged internally like those described above, but with the door so constructed that it can be pushed back between the case and its neighbor, thus leaving the contents entirely free from obstruction. Twelve of such cases have been built and installed in the new room and have proven perfectly practical and satisfactory. They are nearly seven feet high, by three feet four inches wide, and contain forty-five five-inch pigeon-holes and three sliding shelves each. They are placed back to back in six separable pairs (A. A. B. B.), thus affording ample accommodation for the doors when pushed back out of the way. When set in place the pairs are held rigidly together by the tracks (c. c. e. e.) in which the doors slide; the cleats (i. i. i. i.) being fixed in place by strong screws before the metal guide-strip (c. c. e. e.) is attached. The door is hinged at g. g. to the wing piece (E. E.), which slides forth and back with it on the track, and is supported at all points in its movement by the silent pivoted caster (h). This caster is mounted in a hardwood block which serves the purpose of a check to the door when pushed back, and a foot press when locking it after closing. The operation of the door requires no more effort than that expended with the ordinary kind; it is simply opened until checked by meeting the face of the wing, then thrust away with a push. In closing it is pulled forward by the key of the lock until stopped by the rolling pins (d. d.), then swung shut. Although the door is entirely separate from the case itself, yet by the bead and groove construction mentioned above, these cases are perfectly tight when closed. When arranged side by side in the herbarium, they occupy but two inches more space than the ordinary case, while the door arrangement allows the tiers to be much closer together." The acquisition of the South Court by the Department of Zoology gave room for an expansion of exhibition material, the demands for which had existed for some time, and two fine groups have made their appearance, the Polar Bear and the Greater Koodoo. The taxidermist has in

addition to the special features upon which he has been engaged, placed on exhibition thirty-two specimens of individuals for the systematic collections in Halls 19 and 20. The large shell collection has been entirely worked over by the Assistant Curator in the Department of Zoology, and special paper block labels have been substituted for the old ones, and the value of the collection, for whatever purpose it may be considered, greatly enhanced.

PHOTOGRAPHY, ILLUSTRATION AND PRINTING.—These divisions have had a busy year, and both in the quantity and quality of work executed, have made an excellent record. The addition of microscopic appurtenances in the Division of Photography has permitted a new and important line of work to be entered upon, while the provision of new type and other facilities have brought the printing office up to a standard of considerable proficiency. Following is a statement of the work performed by the photographer :

	Negatives.	Prints.	Lantern Slides.	Develop- ments.	Enlarge- ments.
Department A,	134	128	148	271	..
Department B,	3	86	6	2	..
Department G,	52	65	86	34	10
Department Z,	718	691	78	..	..
Publications,	32	60	..	..	..
Lectures,	18	..	25	..	..
For Distribution,	7	45	..	..	..
Expeditions,	184	..	..	..	..
Totals,	1,148	1,075	343	307	10

The printer reports the number of label forms and other impressions are as follows :

	Labels.	Other Impressions.
Anthropology,	1,821	5,665
Botany,	312	22,100
Geology,	2,239	.....
Library, . . . . .	.....	7,005
Zoology,	2,662	5,050
Director's Office,	794	60,463

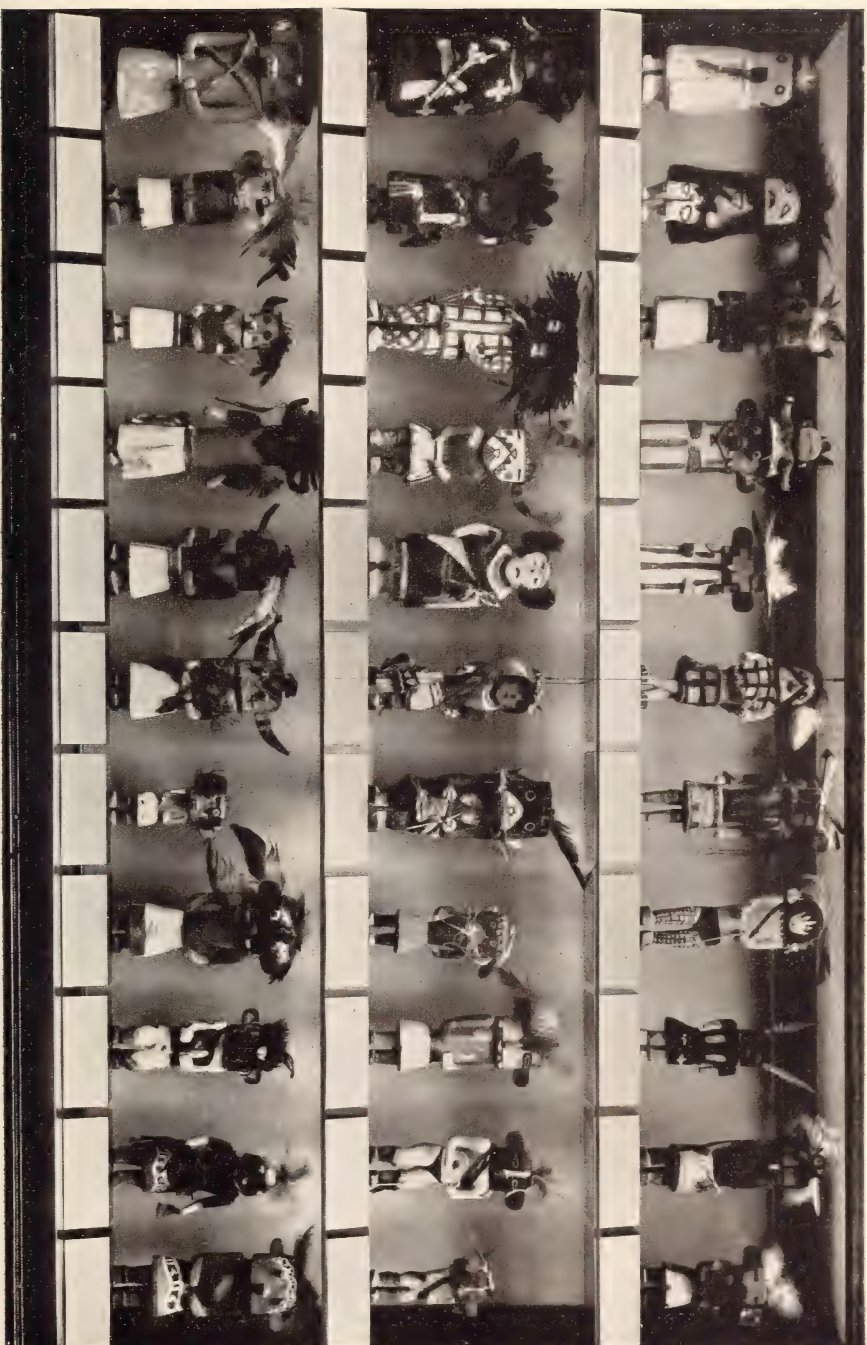
Several of these jobs were unusually large and required a great amount of time and labor. In addition the mailing list has been attended to.

ATTENDANCE.—The increase in the attendance must be considered gratifying; the figures showing an increase of 43,595 over 1899 in the total attendance for the year. The visit of the members of the Grand

Army of the Republic helped this to an extent. The Museum prepared a framed directory of the museums, galleries and libraries of the city, which has been hung in the different hotels and other public places for the guidance of visitors to Chicago. It has been noted especially during the summer just passed that a large number of people visiting the Museum were evidently strangers in the city, which leads one to the conclusion that the fame of the institution is spreading, and that it is now regarded as one of the points of attraction to those who are transient in the city. The demands of visitors for the printed guide continues with gratification, and the sixth edition made its appearance this year, somewhat improved over previous issues because of a condensation of bulk without a relinquishment of fact. Among the schools whose classes have visited the Museum in bodies during the year may be mentioned the following:

Schools and Location.	Teachers.	Pupils.
Lewis—Princeton avenue and 61st street,	1	40
J. N. Thorp—Superior avenue and 89th street,	3	80
Burr—Ashland and Wabansia avenues,	2	35
A. L. Barnard—Charles and 104th streets,	3	35
Kershaw—Union avenue and 64th street,	1	35
Normal—444 West 69th street,	1	83
J. N. Thorp—Superior avenue and 89th street,	2	79
Charles W. Earle—61st street and Armitage avenue,	4	39
Kershaw—Union avenue and 64th street,	2	30
D. S. Wentworth—Sangamon and 70th streets,	2	89
McCosh—Champlain avenue and 66th street,	1	44
McCosh—Champlain avenue and 66th street,	1	30
D. S. Wentworth—Sangamon and 70th streets,	2	89
Herman Raster—Wood and 70th streets,	1	32
Keith—Dearborn and 34th streets,	2	60
Normal—444 West 69th street,	2	34
J. N. Thorp—Superior avenue and 89th street,	2	33
Calumet High—Wright street, near 80th street,	1	34
Sherman—Morgan street and 51st court	1	34
Normal—444 West 69th street,	1	101
Hyde Park High—Kimbark avenue and 57th street,	1	116
Hyde Park High—Kimbark avenue and 57th street,	1	91
Eighty-third Street—83d street, near Illinois Central railroad,	1	37
Normal—444 West 69th street,	1	40
South Chicago High—Houston avenue and 93d street,	1	30
Normal—444 West 69th street,	1	30
Normal—444 West 69th street,	1	42
D. S. Wentworth—Sangamon and 70th streets,	1	31
Calumet High—Wright street, near 80th street,	1	32
Schley—627-653 N. Oakley avenue,	1	41
Calumet High—Wright street, near 80th street,	1	38

Schools and Location.	Teachers.	Pupils.
Normal—444 West 69th street,	2	106
South Chicago High—Houston avenue and 93d street,	1	40
Champlain—Stewart avenue and 62d street,	1	51
Normal—444 West 69th street,	3	102
Normal—444 West 69th street,	1	69
Phil Sheridan—Escanaba avenue and 90th street,	1	32
Parkside—Avenue B and 70th street,	2	37
St. Martins—West 59th street and Princeton avenue	3	55
Englewood High—Stewart avenue and 62d street,	2	232
Kosciusko—Division and Cleaver streets,	1	54
Shields—West 43d street and South Rockwell street,	2	55
Van Vlissingen, 108th place, near Wentworth avenue,	1	36
Kershaw—Union avenue and 64th street,	2	72
Fernwood—Fernwood	4	68
Fernwood—Fernwood	2	34
Chas. W. Earle—61st street and Armitage avenue,	2	33
Eighty-third Street—83d street, near Illinois Central railroad	2	39
Chas. W. Earle—61st street and Armitage avenue,	1	30
Eighty-third street—83d street, near Illinois Central railroad	3	82
McPherson—North Lincoln street and Lawrence avenue,	2	54
J. N. Thorp—Superior avenue and 89th street,	3	66
J. N. Thorp—Superior avenue and 89th street,	5	124
J. N. Thorp—Superior avenue and 89th street,	2	30
Perkins Bass Kindergarten	2	48
Moody Institute—Chicago and LaSalle avenues,		55
Eighty-third Street—83d street, near Illinois Central railroad,	2	36
Graham—Winter and 45th street,	1	36
Eighty-third Street—83d street, near Illinois Central railroad,	3	66
Graham—Winter and 45th streets,	1	38
Fallon—Wallace and 42d streets,	1	32
Hyde Park High—Kimbark avenue and 57th street,	3	57
Eighty-third Street—83d street, near Illinois Central railroad,	1	33
Pickard—Hinman street and Oakley avenue,	4	80
D. S. Wentworth—Sangamon and 70th streets,	1	41
J. N. Thorp—Superior avenue and 89th streets,	2	42
Phil Sheridan—Escanaba avenue and 90th street,	2	46
Eighty-third Street—83d street, near Illinois Central railroad,	5	91
Graham—Winter and 45th streets,	1	32
Burr—Ashland and Wabansia avenues,	2	44
Marquette—Harrison and Wood streets,	1	30
Harrison—23d place, near Wentworth avenue,	1	31
Colman—Dearborn street, near 47th street,	2	97
Fernwood—Fernwood,	1	30
Henry Clay—Superior avenue and 133d street,	2	54
Headley—Lewis street and Garfield avenue,	2	62
Sherman—Morgan street and 51st court,		87
Phil Sheridan—Escanaba avenue and 90th street,	3	68
Hawthorne—School street and Seminary avenue,	2	59
J. N. Thorp—Superior avenue and 89th street,	2	36



HOPi KACHINAS OR TIHUS ($\frac{1}{2}$ OF ENTIRE COLLECTION) — STANLEY MCCORMICK EXPEDITION — FIELD COLUMBIAN MUSEUM.



Schools and Location.	Teachers.	Pupils.
J. N. Thorp—Superior avenue and 89th street,	1	56
Chicago Vacation—Chicago,	3	56
Chicago University—Chicago,	1	32
Chicago Institute—Chicago,	3	48
Normal Practice—444 West 69th street,	2	48

The following is a comparison of the attendance with that of the preceding year :

	Increase.	Decrease.
Total attendance,	42,595	. . .
Paid attendance,	6,663	. . .
Attendance of school children on pay days,		6
Attendance of students,		223
Attendance of teachers,		31
Attendance of members,		9
Average daily attendance, 1899,		611
Average daily attendance, 1900,		728

Herewith are submitted financial statements, analysis of attendance, lists of accessions, names of members, etc., etc.

FREDERICK J. V. SKIFF,

Director.

FINANCIAL STATEMENT.

RECEIPTS AND DISBURSEMENTS

During Year Ending September 30, 1900.

RECEIPTS.

Cash in Treasurer's hands, Sept. 30, 1899,		\$ 1,068.14
Petty Cash on hand, Sept. 30, 1899,		739.95
Dues of Members—		
Corporate,	\$ 180.00	
Annual Members,	3,340.00	3,520.00
South Park Commissioners,		15,000.00
Interest on Investments,		8,034.43
Sundry Receipts,		1,694.40
Admission and Check Rooms,		8,192.25
Sale of Guides,		290.75
Cyrus H. McCormick—Caldera Collection,		250.00
Martin A. Ryerson—Thiessing Collection,		873.79
William J. Chalmers—Crystal Collection,		389.00
Sale of Securities,		85,000.00
		<u>\$125,052.71</u>

DISBURSEMENTS.

Salaries,		\$45,677.70
Guard Service,		11,910.75
Janitor Service,		6,905.23
Fire Protection,		2,817.47
Heat and Light—		
Wages,	\$3,217.12	
Fuel and Supplies,	4,338.88	
Additions to Plant,	355.77	7,911.77
Repairs and Alterations—		
Wages of Carpenters, Painters and Roofers,	9,429.85	
Material Used—Paints, Oils, Hardware,		
Glass, Lumber and Plaster,	1,971.87	11,401.72
Carried forward,		<u>\$86,624.74</u>

<i>Brought forward,</i>		\$86,624.74
Furniture and Fixtures—		
Cases and Bases,	\$10,180.93	
Sundries,	434.66	10,615.59
The Library—		
Books and Periodicals,	545.06	
Binding,	330.75	
Sundries,	40.64	916.45
Sections of Printing and Photography,		1,031.06
Collections and Articles Purchased,		8,616.70
Installation Expenses,		3,146.00
General Expense Account—		
Freight, Expressage and Teaming,	1,716.16	
Stationery, Postage, Telegrams and Tele-		
phone,	997.43	
Publications,	2,558.11	
Expeditions,	3,704.25	
Sundries,	935.60	9,911.55
		\$120,861.99
In Treasurer's hands, Sept. 30, 1900,	3,450.77	
Petty Cash on hand, Sept. 30, 1900,	739.95	4,190.72
		\$125,052.71

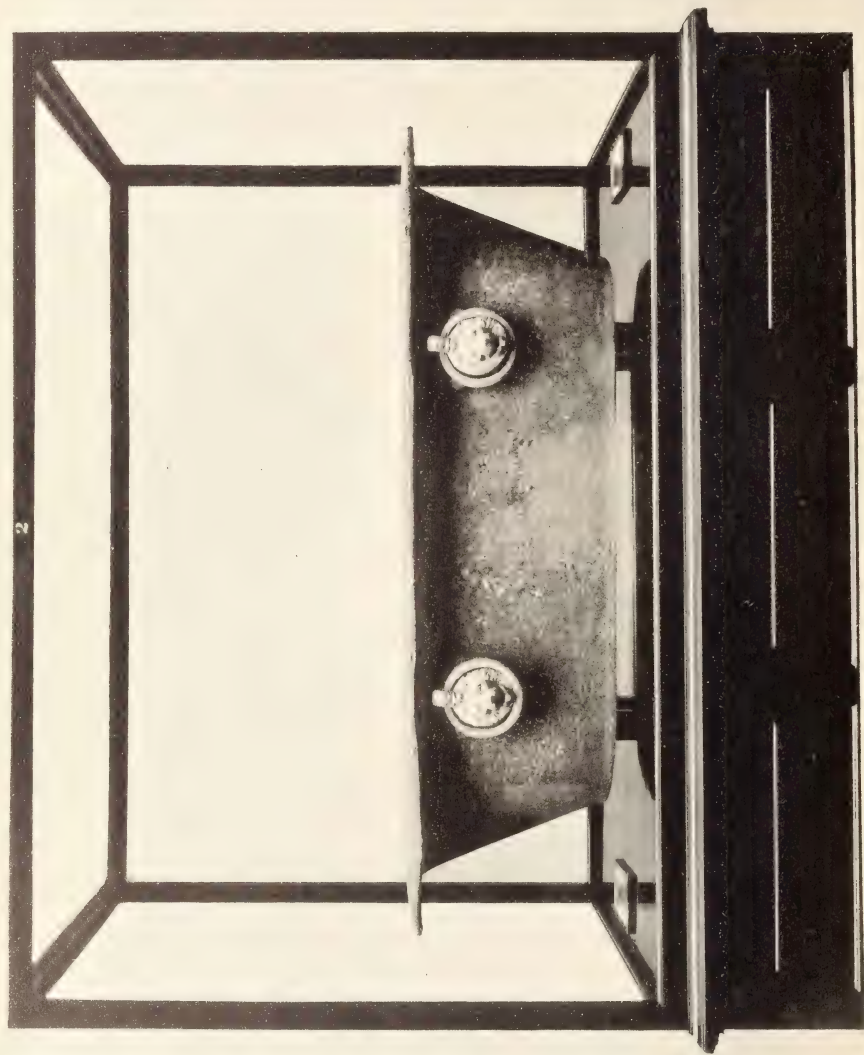
ATTENDANCE AND RECEIPTS FOR YEAR ENDING SEPTEMBER 30, 1900.

ATTENDANCE.			Total.
Paid Attendance—			
Adults,	26,855		
Children,	1,255		28,110
Free Admissions on Pay Days—			
School Children,	7,105		
Students,	1,347		
Teachers,	419		
Members—Corporate,	30		
Annual,	391		
Life,	49		
Officers' Family,	61		
* Special,	5,813		
Press,	1		15,216
Admission on Free Days—			
Saturdays,	56,717		
Sundays,	166,856		223,573
Total Attendance,			266,899
Highest Attendance on any day, (Sept. 2, 1900),	6,839		
Highest Paid " " " (Aug. 29, 1900),	1,787		
Average Daily Admissions (365 days),	728		
Average Paid Admissions (260 days),	108		

RECEIPTS.

Guides Sold—1,163 at 25 cents each,	\$ 290.75
Articles Checked—27,060 at 5 cents each,	1,353.00
Admissions,	6,839.25
	<u>\$8,483.00</u>

* Members of the Grand Army of the Republic.



ACCESSIONS.

FROM OCTOBER 1, 1899, TO SEPTEMBER 30, 1900.

DEPARTMENT OF ANTHROPOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

AMERICAN MUSEUM OF NATURAL HISTORY, Central Park, New York.
1 plaster cast of rock carvings—Nanaimo, Vancouver Island—(exchange).

ART INSTITUTE OF CHICAGO, Chicago.

97 specimens of Hildesheim and Bernay Treasures, Electrotypes—(exchange).

AYER, EDWARD E., Chicago.

62 specimens copper coins, copper ear pendants, copper shields, whistles, serpentine idol, small carved cylinders and penates, stone celts, spear and arrow heads, etc.—Mexico.

BRITISH MUSEUM, London, England.

66 specimens bronze celts, spear heads, stone celts, scrapers, whorls, cores, etc.—Europe—(exchange).

BRUCE, M. W., Chicago.

2 Eskimo kyaks—Alaska.

1 Eskimo sledge—Alaska.

CHICAGO, MILWAUKEE & ST. PAUL RAILWAY, Chicago.

3 pieces of Indian pottery—near Sunrise, Minnesota.

FIELD COLUMBIAN MUSEUM.

Collected by J. A. Burt on Stanley McCormick Expedition:

350 specimens of pottery, bone implements, shell ornaments and various objects of stone, wood, etc., from the prehistoric Hopi ruins at Homolobi, Cheylon and Lower Little Colorado Valley.

300 specimens of pottery, stone implements, etc., resulting from excavations in ancient Hopi ruins—Lower Little Colorado, Arizona.

Collected by Geo. A. Dorsey and H. R. Voth on Stanley McCormick Expedition:

249 specimens masks, tihus, bahos, games, pipes, clothing, utensils, etc.—Hopi villages, Arizona.

Collected by Chas. L. Owen on Stanley McCormick Expedition:

150 specimens of masks, tihus, pipes, games, etc.—Hopi villages, Arizona.

2,500 specimens of pottery, stone, bone, etc., from ancient Hopi ruins of Tusayan—Arizona.

Collected by Geo. A. Dorsey:

200 ethnological specimens from the Pomos—Mendicino County, Cal.

100 ethnological specimens from Salish—Puget Sound, Wash.

42 ethnological specimens from the Sauk and Fox Indians—Iowa.

34 ethnological specimens from the Pai Ute Indians—Nevada.

2,000 specimens of quarry and shop site refuse, rejects, hammer stones, etc.—Whalen Cañon, Wyo.

48 ethnological specimens from the Nez Perce Indians, Idaho.

120 ethnological specimens from the Pomo Indians—Ukiah, Cal.

350 ethnological specimens from the Shoshoni and Arapahoe Indians—Wind River Reservation, Wyo.

Collected by Geo. A. Dorsey:

- 150 ethnological specimens from the Assinaboin and Yankton Sioux—Montana.
- 300 ethnological specimens from the Klamath, Modoc, etc.—Oregon.
- 64 ethnological specimens from the Sisseton and Cut Head Sioux—North Dakota.
- 92 ethnological specimens from the Hoopa Indians—California.
- 37 ethnological specimens from the Umatilla Indians—Oregon.
- 32 ethnological specimens from the Bannock Indians—Bannock Reservation.
- 75 ethnological specimens from the Gros-Ventre, Algonkin Stock—Montana.
- 61 ethnological specimens from the Wasco Indians—Hood River, Wash.
- 122 ethnological specimens from the Makah Indians—Neah Bay, Wash.
- 115 ethnological specimens from the Ute Indians—Utah.
- 2 carved house posts from Victoria, Vancouver Island, B. C.

Collected by Dr. W. A. Phillips:

- 150 specimens quarry and shop site material, aboriginal flint quarry, contents of Indian graves, etc.—Mill Creek, Ill.

Collected by S. C. Simms:

- 229 specimens archæological and ethnological material—Six Nations Reserve, Canada.

Purchases:

- Collection from Comanche Reservation, Indian Territory, comprising 40 specimens.

- Headdress of Chief Mazway, bracelet of copper and brass wire—Matebele land, Africa.

- Collection illustrating the archæology of Southern Illinois, comprising 3,149 specimens of pottery, pipes, hammers, axes, celts, objects of shell and bone, flint hoes, spades, knives, chisels, etc.—Illinois.

- 1 pair Winnebago woman's moccasins.

- 1 pair gambling sticks (Arapahoe).

- 1 pair gambling sticks (Cheyenne).

- 2 hair braids from (Cheyenne) Indian *cut hair*.

- 6 old American glass flasks.

- 261 specimens stone arrow points, etc.—Michigan.

- 1 buckskin shirt (porcupine work), 2 pair buckskin leggings, 2 pair buckskin moccasins, 1 painted buckskin—Dakota.

- 32 specimens ethnological objects from the Winnebago Indians—Wisconsin.

Purchased by Edward E. Ayer for the Museum:

- 17 pieces of ancient glass.

- 16 sections of mural decorations from Hadrian's Villa—Italy.

FREE MUSEUM OF SCIENCE AND ART, Philadelphia, Pa.

- 15 specimens, replicas of sets of games of North American Indians (exchange).

FREE PUBLIC MUSEUM, Liverpool, England.

- 76 specimens, series of material illustrating the process of manufacture of flint implements in ancient Egypt (exchange).

HARRIMAN EXPEDITION OF 1899 to ALASKA.

- 1 totem pole—Old Tongas, Alaska.

HIGINBOTHAM, H. N., Chicago.

- Ethnological collection from Korea, comprising 734 specimens.

HUDSON, DR. J. W., Ukiah, Cal.

- 40 specimens, ethnological objects from the Pomo Indians—Ukiah, Cal. (exchange).

HULL, WM. F., Prescott, Ariz.

- Basket containing a clay female figure, found in a cave in a range of mountains overlooking the Verdi Basin—Arizona.

KERBER, DR. H. C., Mooresburg, Tenn.

- 2 grooved stone axes—Hawkins County, Tenn.

- KRAGER, CARL, 6019 Green street, Chicago.
Large green stone celt—Fort Omaha, Neb.
- MCCORMICK, CYRUS H., Chicago.
Collection of 1,175 specimens from prehistoric graves at Caldera, Chile, comprising ornaments, implements and weapons of stone, bone, wood, shell and copper—Caldera, Chile.
- MCCORMICK, STANLEY, Chicago.
Group representing priests, etc., and altar of Soyaluña, a Hopi winter ceremony—Oraibi, Ariz. (reproduced by H. R. Voth).
Altar of the Marau fraternity, a Hopi woman's society—Oraibi, Ariz. (reproduced by H. R. Voth).
Altar of the Masililantu or Flute society—Oraibi, Ariz. (reproduced by H. R. Voth).
Group representing Altar and Mana of Oöqölto society, a Hopi woman's ceremony—Oraibi, Ariz. (reproduced by H. R. Voth).
Altar and Sand Mosaic of the Antelope society—Oraibi, Ariz. (reproduced by H. R. Voth).
Altar and Sand Mosaic of the *Powanu* society (Hopi)—Oraibi, Ariz. (reproduced by H. R. Voth).
Altar and Sand Mosaic of the Cho or Snake society (Hopi)—Oraibi, Ariz. (reproduced by H. R. Voth).
Altar and Sand Mosaic of Powalawu (Hopi)—Oraibi, Ariz. (reproduced by H. R. Voth).
Sand Mosaic of the Katsina initiation ceremony—Oraibi, Ariz. (reproduced by H. R. Voth).
- MOSELEY, ALFRED, London, England.
21 specimens, beaded purse, assegai, spears, snuff boxes, cups, ladles, spoons, armlets, etc.—Bechuanaland, Africa.
- PANDIAN, T. B., 184 Dearborn street, Chicago.
Hindu account book about 100 years old, written in Tamil upon palm leaves strung together by a cord through holes at one end of the leaves—India.
- RYERSON, M. A., Chicago.
Swiss Lakes collection, comprising 1,081 specimens of stone age, bronze and iron specimens, implements, ornaments of horn and bone, pottery, fauna and textile specimens, seeds and fruits—Switzerland.
- SAMUEL, GEO. F., Chicago.
Beaded buckskin saddle, blanket, necklace of long leather strip closely ornamented with plum stones painted green—Pine Ridge Agency, South Dakota.
- SPALDING, LU READ, Kirkland, Ill.
10 stone specimens, 2 pottery fragments—Bad Lands, South Dakota.
- WICKERSHAM, JUDGE JAMES, Tacoma, Wash.
Charms and fetishes from a medicine man's basket (Apache)—Arizona.
- WILLIAMSON, GEORGE, Natchitoches, La.
54 specimens arrow and spear heads, knives, etc.—Louisiana (exchange).

DEPARTMENT OF BOTANY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- AYER, EDWARD E., Chicago.
160 herbarium specimens—Arizona.
- BAKER, WALTER & CO., Milton, Mass.
5 dummy specimens chocolate products.
9 specimens illustrating utilization of cocoa.
- BEBB, ROBERT, Chicago.
45 herbarium specimens—Illinois and Indiana.
148 herbarium specimens—Illinois and Indiana.

CHASE, MRS. AGNES, 5515 Monroe avenue, Chicago.

- 5 herbarium specimens—Illinois.
- 23 herbarium specimens—Illinois and Indiana.
- 34 herbarium specimens—Illinois, Indiana and Ontario.
- 25 orchids and mosses of Illinois.
- 65 packets of fruits and seeds—Illinois.
- 1 specimen, fruits of *Crataegus mollis*—Illinois.
- 1 specimen, fruits of *Triosteum angustifolium*—Illinois.

CLARK, C. B., Kew, Surrey, England.

- 2 herbarium specimens typical Cyperaceæ.

ELLFELDT, W. F., Field Columbian Museum.

- 1 specimen fresh fungus, *Coprinus comatus*.

FIELD COLUMBIAN MUSEUM.

Collected by O. E. Lansing, Jr.:

- 279 herbarium specimens—Lake Michigan Basin.
- 91 herbarium specimens—Illinois and Indiana.
- 138 herbarium specimens—Illinois and Indiana.

Collected by S. E. Meek:

- 33 herbarium specimens—Toronto, Canada.

Collected by C. F. Millsbaugh:

- 42 herbarium specimens—Indiana.

Purchases:

- 376 herbarium specimens—Arizona.
- 794 herbarium specimens—Danish West Indies.
- 201 herbarium specimens—Florida.
- 20 *Cryptogams*—Florida.
- 268 herbarium specimens—Mexico.
- 45 sheets Cuban palms—Cuba.
- 1,000 herbarium specimens—Porto Rico.
- 491 herbarium specimens—Porto Rico.
- 133 herbarium specimens—Jamaica.
- 82 herbarium specimens—Mississippi.
- 598 herbarium specimens—various localities.
- 1,018 herbarium specimens—various localities.
- 585 herbarium specimens—Mexico.
- Personal herbarium of H. N. Patterson, estimated to consist of 30,000 specimens.

FOWLER, JOHN, Kingston, Canada.

- 514 herbarium specimens—Ontario, New Brunswick, Nova Scotia (exchange).
- 191 herbarium specimens—Canada (exchange).

GRAY HERBARIUM, Cambridge, Mass.

- 40 herbarium specimens—Mariana, Cuba.
- 184 herbarium specimens—Isle of Pines.
- 3 specimens of *Cakile*—various localities.
- 122 herbarium specimens—various localities (exchange).
- 9 herbarium specimens (dried fruits and seeds)—Florida Keys (exchange).

HELLER, A. A., 411 W. Walnut street, Lancaster, Pa.

- 10 sheets Cyperaceæ—Porto Rico.

HOPE BOTANICAL GARDENS—Kingston, Jamaica.

- 72 herbarium specimens—Jamaica (exchange).

IOWA STATE UNIVERSITY, Iowa City, Iowa.

- 404 herbarium specimens—various localities (exchange).

KÖENIGL HOF MUSEUM, Berlin, Germany.

- 26 herbarium specimens—various localities (exchange).
- 36 herbarium specimens—Jamaica (exchange).

LANSING, O. E., Field Columbian Museum.

- 4 herbarium specimens—Lake Michigan Basin.

- MAC OWAN, P., Cape Town, South Africa.
1 herbarium specimen (seeds of *Cysticupnos Africana*)—South Africa.
- MERRYWEATHER, GEORGE, 601 The Rookery, Chicago.
100 herbarium specimens—North Yorkshire, England.
- MILLSPAUGH, C. F., Field Columbian Museum.
24 specimens fungi—St. Croix (collected by A. E. Ricksecker).
2 economic specimens—Illinois.
- MOHR, CHARLES, Biltmore, S. C.
3 specimens *Cakile*—Alabama and New York.
- NATAL BOTANICAL GARDENS, Berea, Durban, Natal.
113 herbarium specimens—South Africa (exchange).
193 herbarium specimens—various localities (exchange).
- NEW YORK BOTANICAL GARDEN, Bronx Park, New York City.
781 herbarium specimens—Montana, Idaho and South Dakota (exchange).
- RICKSECKER, ALFRED E., Oberlin, Ohio.
20 herbarium specimens—Island of St. Croix.
- SMALL, DR. JOHN K., Bedford Park, New York City.
5 species of *Cyperaceæ*—various localities.
- SMITH, JOHN DONNELL, Baltimore, Md.
186 herbarium specimens—various localities.
- SNYDER, MRS. MARY S., Pacific Beach, Cal.
9 sheets *Algæ*—Pacific Beach, Cal.
- TRELEASE, WILLIAM, St. Louis, Mo.
1 specimen, fruits of *Cladium Germanicum*—Germany.
- UMBACH, L. M., Naperville, Ill.
852 herbarium specimens—Lake Michigan Basin (exchange).
- UNITED STATES NATIONAL MUSEUM, Washington, D. C.
10 herbarium specimens—various localities (exchange).
- WOOD, HENRY H., Chicago.
1 complete specimen of new fibre plant, genus *Hesperaloe*—Mexico.
- YORK, P. H., Chicago.
1 package herbarium specimens (seeds of Tabasco rubber tree, *Hevea Guayanensis*—Tabasco, Mexico).

DEPARTMENT OF GEOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- ACHESON GRAPHITE CO., Niagara Falls, N. Y.
1 specimen Graphite made from anthracite—Niagara Falls, N. Y.
- ATCHISON, TOPEKA & SANTA FE R. R, Chicago.
3 specimens Celestite—Southwest Texas.
1 specimen infusorial earth.
- ED. E. AYER PIONEER HOSE CO., Flagstaff, Ariz.
1 Cañon Diablo meteorite, weighing 76¾ lbs.
- BIRGE, CHAS. P., Keokuk, Iowa.
24 specimens, series of Quartz Geodes—Keokuk, Iowa.
- BRADBURY, DR. S. M., Grand Junction, Colo.
2 slabs containing fossil insects—Grand Junction, Colo.
1 specimen fossil leaf—Grand Junction, Colo.
- BRUCE, M. W., 996 N. Oakley avenue, Chicago.
15 bones of Mammoth and species of *Bos*—Alaska (loan).
- BUEHRMANN, OTTO, St. Louis, Mo.
2 specimens sulphur—Rabbit Hole District, Nevada.
1 specimen sulphur—Pecos Valley, Texas.

CENTRAL SCHOOL SUPPLY HOUSE, Chicago.

Relief map of Palestine.

Relief maps of North and South America, Europe, Asia, Africa, the United States and the World (exchange).

COHEN, PROF. E., Greisswald, Germany.

7 specimens Troilite, Tænite, Cohenite, Schreibersite and other meteorite minerals (exchange).

1 specimen terrestrial nickel-iron—Niakornak, West Greenland (exchange).

COX, E. V., 1203 Ashland Block, Chicago.

1 specimen lead ore—Great Slave Lake, British America.

CULMER, H. H., 5805 Madison avenue, Chicago.

3 specimens asphalt and petroleum shale—Wyoming.

DERR, H. B., 6561 Michigan avenue, Chicago.

54 specimens, Fish remains from Devonian beds—Elmhurst, Ill.

356 specimens Lower Silurian and Coal Measures fossils, representing 35 species—Cincinnati, Ohio, and La Salle, Ill. (exchange).

ELDREDGE, C. T., 700 Western Union Building, Chicago.

1 specimen Graphite—Copper Cliff Mine, Black Hills, S. D.

1 specimen Halotrichite—Copper Cliff Mine, Black Hills, S. D.

FIELD COLUMBIAN MUSEUM.

Collected by O. C. Farrington:

1 specimen quartzite—Cherbourg, France.

200 specimens stalactites and stalagmites, 10 specimens gypsum "flowers," 5 specimens cave earths—Wyandotte, Marengo, Shiloh, and Coan's caves, Indiana.

50 specimens crystallized Calcite—Coan's Cave, Ind.

20 specimens stylolites, 15 specimens invertebrate fossils—Bedford, Ind.

Collected by E. S. Riggs:

Tibia and rib (incomplete) of Mastodon or Elephas, lower jaw of Bison, portion of Deer Antler—Batavia, Ill.

Collected by E. S. Riggs and H. W. Menke:

5 tons remains of *Brontosaurus*, *Morosaurus*, *Diplodocus*, *Creosaurus* and *Camptosaurus*, 10 specimens Jurassic invertebrate fossils, 5 skulls of recent Mammals—Freezeout Mountains, Wyoming.

29 Vertebrae, scapula and coracoid of medium-sized Dinosaur, 9 vertebrae, 2 ilia, sacrum, 2 femora, 5 ribs and other bones of large Dinosaur, scapula, coracoid, nearly complete fore limb and additional foot bones of small Dinosaur, 20 specimens invertebrate fossils—Western Colorado.

Collected by H. R. Voth:

7 specimens sandstone showing ripple marks and mud cracks—near Cañon Diablo, Arizona.

Purchases:

Set of Geographical Models (3) illustrating mountains bordering the sea, coastal plain and mountains, and embayed mountains.

1 specimen crystallized gold—Colorado.

1 specimen gold and Roscolite—Colorado.

1 glaciated mass of copper weighing 5½ lbs.—Dorr, Allegan County, Mich.

1 section of Beaconsfield meteorite, weighing 413 grams.

87 specimens, Rohn collection of rocks accompanying copper and iron ores of Lake Superior.

1 section of Murphy, N. C., meteorite, weighing 125 grams.

1 section of Tombigbee River meteorite, weighing 1,600 grams.

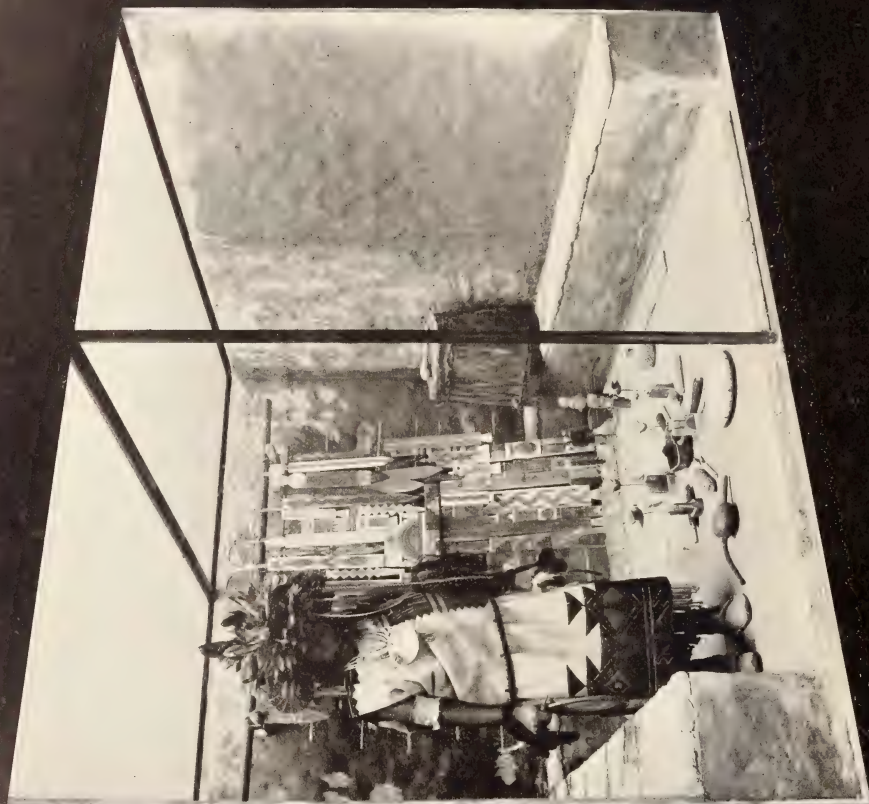
29 fossil leaves, 25 limonite concretions, 88 fragments of fossil leaves, 2 specimens Scaphites, 2 fragments Belemnites—Kansas.

20 grams Orgueil meteorite.

69 grams Jelica meteorite.

32½ grams Lissa meteorite.

1 Molar of Mammoth—near Hayes, Neb.



Purchases:

- 1 specimen Wulfenite—New Mexico.
- 4 specimens Norway minerals.
- 21 mineral specimens—chiefly from Australia.
- 32 specimens Mexican fossils and minerals.
- Relief map of Chicago and vicinity.
- 1,359 specimens of invertebrate fossils—mostly from vicinity of Cincinnati, Ohio.
- 90 specimens invertebrate fossils—Kansas and Nebraska.
- 7 specimens minerals—Black Hills and Kansas.
- 725 specimens Paleozoic fossils—chiefly from southern Illinois.
- 10 specimens miscellaneous minerals and rocks—Southern Illinois.

FISKE, JOHN, AND CASTLE, EDWARD.

- 2 quartz geodes—shore of Lake Michigan, Chicago.

GARDNER, L. R., Gillett, Colo.

- 3 specimens gold ore—Gillett, Colo.

HARRISON, E. J., 1062 Millard avenue, Chicago.

- 4 specimens cave formations—Crystal Cave, South Dakota.

HENDERSON, L. R., Viola, Wyo.

- 2 specimens Graphite—Wyoming.

ILLINOIS STEEL CO., Chicago.

- 33 prints of photographs in and around steel works.

INSTITUTE DE MINES, St. Petersburg, Russia.

- 4 specimens Indarch, Augustinowka and Krasnojarsk meteorites (exchange).

JOHNSON, W. L., 703 Fisher Building, Chicago.

- 1 specimen Chalcopyrite—Wyoming.
- 1 specimen Chalcopyrite and Cuprite—Wyoming.
- 1 specimen Chalcopyrite and Bornite—Wyoming.
- 1 specimen Bornite—Wyoming.

KUNTZE, OTTO, Iowa City, Iowa.

- 13 mineral specimens (exchange).

LYMAN, J. R., Bakersfield, Mo.

- 1 specimen "sand carbonate" zinc ore from the Gordon & Gregg mines—Blei, Ozark County, Mo.

McKAY, W. J., 4737 Calumet avenue, Chicago.

- 3 specimens Chrysocolla—Torpedo Mine, New Mexico.

MILWAUKEE CEMENT CO., Milwaukee Wis.

- 8 specimens illustrating the manufacture of cement.

MORONEY, JOHN J., Temple Court Building, Chicago.

- 23 specimens dry press briquettes, 5 specimens stiff mud briquettes, 7 specimens sand-mold briquettes, 10 specimens clays—United States and Europe.

- 3 specimens briquettes, 4 specimens brick clays.

- 1 specimen copper ore—near Baltimore, Md.

MORRILL, HON. CHAS. H., Lincoln, Neb.

- 3 specimens volcanic ash from localities in Nebraska.

NOTLA CONSOLIDATED MARBLE, IRON AND TALC CO., Kinsey, N. C.

- 1 specimen talc—Kinsey, N. C.

NEWARK TECHNICAL SCHOOL, Newark, N. J.

- 6 specimens Apophyllite, Heulandite and Stilbite—West Paterson, N. J. (exchange).

- 3 specimens miscellaneous minerals (exchange).

NICHOLAS, FRANCIS G., 43 Cedar street, New York City.

- 1 specimen schist associated with gold placer deposits—United States of Colombia.

OLIVER, O. A., 57 Washington street, Chicago.

- 2 specimens peat—Gardenplain, Ill.
- 2 specimens peat soil—Gardenplain, Ill.

- PITTSBURGH REDUCTION CO., New Kensington, Pa.
7 specimens Beauxite—Arkansas and Georgia.
- REED, FRANK J., 198 Custom House Place, Chicago.
8 specimens Hindostan sandstone, showing mode of occurrence and varieties, 1 specimen fossil fern, 1 specimen *Lepidodendron*—French Lick, Ind.
- RIGGS, E. S., Field Columbian Museum.
100 specimens, collection of Kansas Cretaceous and Carboniferous invertebrates and miscellaneous minerals and ores.
- SALL MOUNTAIN ASBESTOS MFG. CO., 123 Ontario street, Chicago.
5 specimens crude asbestos, 1 specimen white fibre, 1 specimen yellow fibre—Sall Mountain, Sautee, Ga.
- SCOTT, GEORGE S., 737 Monadnock Building, Chicago.
1 specimen Barite—Galena, Kans.
1 specimen Chalcocite—New Mexico.
- SEEBOECK, W. C. E., 5241 Cornell avenue, Chicago.
2 specimens Houghite—Somerville, N. Y.
5 mineral specimens (exchange).
- SHEAHAN, THOS., Geneva, Ill.
1 specimen fossil limestone—Lewis County, New York.
- SPALDING, LU READ, Kirkland, Ill.
1 specimen Marcasite concretion—Chamberlin, S. D.
2 specimens Titanotherium bones—Bad Lands, S. D.
- STANTON, F. McM., Atlantic Mine, Houghton County, Mich.
1 nugget of crystallized silver, weighing 2½ ozs. (deposit).
- UNITED STATES NATIONAL MUSEUM, Washington, D. C.
13 specimens Cambrian *medusa*—Coosa Valley, Ala.
1 specimen of Allegan meteorite, weighing 86 grams (exchange).
- UNIVERSITY OF CHICAGO, Chicago.
3 specimens Thomsonite—Colorado (exchange).
1 specimen Celestite—Ohio (exchange).
- UNIVERSITY OF KANSAS, Lawrence, Kans.
1 Fibula of *Morosaurus* (exchange).
- WARD, H. A., 620 North Division street, Chicago.
1 specimen of Allegan meteorite, weighing 56 grams.
1 specimen of Oakley meteorite, weighing 263 grams.
1 etched section of St. Genevieve County meteorite, weighing 790 grams.
1 section of Costilla meteorite, weighing 1,154 grams (exchange).
- WILSON, HELEN E., 391 Thirty-third street, Chicago.
1 Septarium—Bears Cañon, near Albuquerque, N. M.

DEPARTMENT OF ORNITHOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

FIELD COLUMBIAN MUSEUM.

Purchases:

- 69 small birds.
- 2 quail.
- 1 laughing falcon.
- 1 *Tales albigularis*.
- 1 Peruvian cock of the rock.
- 1 orange-throated chatterer.
- 1 military macaw.
- 1 brown-fronted macaw.
- 177 bird skins—Philippine Islands.
- 8 herons (mounted)—Florida.

DEPARTMENT OF ZOOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

BOOTH PACKING CO., Lake and State streets, Chicago.

- 2 crabs.
- 2 lobsters.

CORY, CHAS. B., Boston, Mass.

- 2 rabbits—Phoenix, Ariz.

FIELD COLUMBIAN MUSEUM.

Collected by J. A. Burt:

- 10 lizards—Winslow, Ariz.
- 1 scorpion—Winslow, Ariz.
- 30 specimens lizards (7 species), 5 specimens horned toads, 4 specimens scorpions (2 species), 2 specimens flies, one field mouse—Winslow, Ariz.

Collected by E. B. Chope:

- 811 specimens insects—Chicago and vicinity.

Collected by O. C. Farrington:

- 2 salamanders—Wyandotte Cave, Ind.
- 8 larvæ of same—Wyandotte Cave, Ind.
- 1 cave cricket—Little Wyandotte Cave, Ind.

Collected by L. V. Kenkel:

- 14 gophers—Woodlawn, Ill.
- 28 squirrels—Ontario, Canada.
- 2 flying squirrels—Ontario, Canada.
- 9 mice—Ontario, Canada.

Collected by S. E. Meek:

- 10 rodents and carnivores—Hicksville, Ohio.
- 600 specimens fishes (26 species)—Northern Ontario.
- 100 specimens reptiles (12 species)—Northern Ontario.
- 20 specimens crustaceous (4 species)—Northern Ontario.

Collected by Chas. L. Owen:

- 114 beetles and bugs (various species)—Navajo County, Ariz.
- 113 specimens insects—Kishu, Ariz.

Collected by Thaddeus Surber:

- 58 rodents, 1 lizard, 4 salamanders, 3 cricket frogs—Florida.
- 28 rodents and carnivores—Florida.
- 40 rodents and carnivores, 13 specimens fishes, 2 reptiles, 17 insects—Florida.
- 82 rodents and carnivores—Florida.
- 63 rodents and carnivores, 12 snakes, 9 lizards—Florida.
- 14 rodents and carnivores, 1 snake—Florida.
- 2 moles—White Sulphur, W. Va.
- 3 squirrels—White Sulphur, W. Va.
- 10 rats—White Sulphur, W. Va.
- 122 rodents and carnivores—Province of Quebec.

Purchases:

- 14 rodents—Jackson Park, Chicago.
- 1 sea otter skeleton—Alaska.
- 27 rodents—Alberta, B. C.
- 1 marten, 1 hare, 8 white-footed mice, 10 pocket gophers, 1 chipmunk—British Columbia.
- 1 red fox, 4 squirrels, 1 muskrat, 1 mink, 6 bats, 2 mice, 6 Sorex (shrews)—British Columbia.
- 1 albino opossum—Apex, N. C.
- 4 African bushbuck skins.
- 1 elk calf skin—Olympic Mountains, Washington.
- 2 goats, 1 antelope, 1 gazelle—Uganda, Central Africa.
- 2 bats, 3 rats, 3 mice, 3 opossums—Venezuela.
- 1 Persian ibex—Altai Mountains, Asia.
- 2 musk deer—Altai Mountains, Asia.

Purchases:

- 6 zebra skins (old and young)—Philopolis, Orange Free State.
 - 1 zebra skin (male)—Angola, Africa.
 - 2 Penrice's waterbuck (male and female), 1 *Cephalophus coronatus* (antelope)—Angola and West Africa.
 - 72 rodents—Alaska.
 - 3 caribou—Alaska.
 - 1 mole—Lansing, N. Y.
 - 3 moles—Lansing, N. Y.
 - 2 moles—Sumas, B. C.
 - 26 meadow mice—Alberta, N. W. Ter.
 - 1 weasel—Alberta, N. W. Ter.
 - 11 squirrels, 1 mole, 2 rats, 8 mice—California.
 - 19 rodents—Texas, California and British Columbia.
 - 1 young white-tailed gnu—Philopolis, Orange Free State.
 - 2,000 specimens shells (535 species)—various localities.
- FORD, A. P., Berwyn, Ill.
- 3 garter snakes—Berwyn, Ill.
 - 2 deka's snakes—Berwyn, Ill.
 - 1 green snake—Berwyn, Ill.
- FORD, JOHN, Philadelphia, Pa.
- 2 species of shells—Bahamas.
- GAULT, B. T., Glen Ellyn, Ill.
- 2 weasels—Du Page County, Ill.
- GLYNN, PETER, Chicago.
- 1 mole—Brookdale, Ill.
- ILLINOIS UNIVERSITY MUSEUM, Champaign, Ill.
- 6 specimens fishes (1 specie)—Stronghurst, Ill. (exchange).
- KENKEL, LOUIS V., 3733 Langley avenue, Chicago.
- 4 mice—Jackson Park, Chicago.
- KENNEDY, VERNON SHAW, 3524 Michigan avenue, Chicago.
- 6 Dalls mountain sheep skins and skulls—Cooks Inlet, Alaska.
 - 1 goat skull (type of Oreamnus Kennedyi)—Mountains at mouth of Copper River, Alaska.
- MADDREN, A. G., Palo Alto, Cal.
- 1 weasel—Palo Alto, Cal.
 - 155 specimens fishes (40 species)—Caroline Islands.
 - 4 bats—Caroline Islands.
- MOENKHAUS, W. J., Chicago University, Chicago.
- 4 frogs (2 species)—Cold Spring Harbor, N. Y.
 - 4 fishes (2 species)—Cold Spring Harbor, N. Y.
- PEARSON, C. J., Redwood City, Cal.
- 1 bat, 1 tarantula, 4 toads, 17 salamanders, 10 lizards, 5 frogs—Redwood City, Cal.
- SARGENT, FREDERICK, St. Paul, Kadiak Island, Alaska.
- 1 weasel—Kadiak Island, Alaska.
- STANGL, PAUL L., Bacoar, P. I.
- 21 beetles—Bacoar, P. I.
 - 24 grasshoppers—Bacoar, P. I.
 - 85 insects—Bacoar, P. I.
 - 1 lizard—Bacoar, P. I.
- STRODE, W. S., Lewistown, Ill.
- 2 bull snakes—Lewistown, Ill.
 - 350 specimens shells (136 species)—various localities.
- TERRY, MRS. ALBERT, 4217 Grand boulevard, Chicago.
- 1 hornet's nest—near Toronto, Canada.

WASHINGTON UNIVERSITY MUSEUM, Seattle, Wash.

- 94 specimens fishes (10 species), 26 specimens reptiles (7 species)—N. W. Washington (exchange).
- 14 rodents and carnivores, 1 seal skull—Washington (exchange).
- 4 batrachians (3 species), 1 lizard—State of Washington (exchange).
- 123 specimens fishes (15 species)—Puget Sound (exchange).
- 5 rodents and carnivores—Seattle, Wash. (exchange).

WHITE, E. NORTON, 6314 Stewart avenue, Chicago.

- 295 specimens insects—Russell, Mobile County, Ala.
- 1 lizard—Russell, Mobile County, Ala.

WILLARD, F. C., Tombstone, Ariz.

- 4 lizards (4 species)—Tombstone, Ariz.
- 5 snakes (2 species)—Tombstone, Ariz.
- 8 cocoons (2 species)—Tombstone, Ariz.
- 295 insects (various species)—Tombstone, Ariz.

WISDOM, W. J., 215 E. Lake street, Chicago.

- 1 flying squirrel—Kankakee Marsh, Ind.

WISWALL, MRS. E. C., Kenosha, Wis.

- 1 shell (*Unio graniferus*)—Mississippi River.

WITHROW, CHAS. LOE B., Bocas del Toro, Colombia, S. A.

- 1 moss hair sloth—Bocas del Toro, Colombia, S. A.

SECTION OF PHOTOGRAPHY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

FIELD COLUMBIAN MUSEUM.

Made by O. C. Farrington :

- 23 negatives, views taken in Indiana caves.
- 6 negatives, views of Paris Exposition, 1900.

Made by H. W. Menke :

- 69 negatives, field views of fossil expedition to western Colorado.
- 99 negatives, field views of Freezeout mountains, Wyoming expedition.

Made by W. H. Nichols :

- 3 negatives of Spoil banks on the Drainage canal—Chicago.

Made by Museum photographer :

- 964 negatives, miscellaneous views.
- 1,075 prints.
- 343 lantern slides.
- 10 enlargements.
- 307 negatives and films developed for other departments.
- 18 photographs mounted for other departments.

Purchases :

- 12 lantern slides "Age of Steel."

SPECIAL ACCESSIONS.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

FRASER & CHALMERS, Chicago.

- 29 coins (unidentified).

THE ADMIRAL DEWEY RECEPTION COMMITTEE, Washington, D. C.

- Bronze medal made from metal captured at Manila and struck in honor of the Admiral's return to Washington, Oct. 2, 1899.

DEPARTMENT OF TRANSPORTATION.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

GOODRICH, ALBERT W., Chicago.

1 Mandarin war junk—China.

HALE, DR. ALBERT B., 103 State street, Chicago.

1 Indian ox cart.

THE LIBRARY.

(ACCESSIONS ARE BY EXCHANGE UNLESS OTHERWISE DESIGNATED.)

Books, Pamphlets and Serials.

ALABAMA GEOLOGICAL SURVEY, University, Ala.

Bulletin, no. 6.

Report on the Warrior Coal Basins, with maps.

ALABAMA INDUSTRIAL AND SCIENTIFIC SOCIETY, University, Ala.

Proceedings, vol. 9, pt. 2.

ALBERG, ALBERT, (the author), Chicago.

Frost flowers on the windows (gift).

AMERICAN ACADEMY OF ARTS AND SCIENCES, Boston, Mass.

Proceedings, current nos.

AMERICAN ANTIQUARIAN SOCIETY, Worcester, Mass.

Proceedings, vol. 13, pts. 1 and 2.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,

North Andover, Mass.

Proceedings, vol. 48.

AMERICAN FOLK-LORE SOCIETY, Cambridge, Mass.

Journal of American folk-lore, current nos.

AMERICAN FORESTRY ASSOCIATION, Washington, D. C.

The Forester, current nos.

AMERICAN GEOGRAPHICAL SOCIETY, New York City.

Bulletin, current nos.

AMERICAN INSTITUTE OF HOMEOPATHY, New York City.

Transactions, 55th session.

AMERICAN MUSEUM OF NATURAL HISTORY, New York City.

Annual report, 1899.

Bulletin, vol. 11, pt. 2, and vol. 12.

Journal, vol. 1, no. 1.

Memoirs, vol. 3, pt. 1.

AMERICAN ORIENTAL SOCIETY, New Haven, Conn.

Journal, vol. 20, pt. 2.

AMERICAN PHILOSOPHICAL SOCIETY, Philadelphia, Pa.

Brinton Memorial meeting, report, 1900.

Proceedings, current nos.

AMHERST COLLEGE LIBRARY, Amherst, Mass.

Quarterly bulletin, vol. 1, nos. 3 and 4.

AMSTERDAM K. AKADEMIE VAN WETENSCHAPPEN, Amsterdam, Netherlands.

Proceedings, section of sciences, vol. 1.

Verhandelingen, vol. 6, nos. 3-8.

Zittingsverslagen, vol. 7.

2 pamphlets.

AMSTERDAM UNIVERSITEITS BIBLIOTHEEK, Amsterdam, Netherlands.

Catalogues der handschriften.

14 inaugural dissertations.



Oraibi Soyal Altar, Star God and Warrior Priest—Stanley McCormick Expedition
— Field Columbian Museum.

- ANDOVER THEOLOGICAL SEMINARY, Andover, Mass.
Catalogue, 1899-1900.
- ANDREE, RICHARD, Braunschweig, Germany.
Globus, vols. 76 and 77.
- ANNALES DES MINES, Paris, France.
Annales, current nos.
- ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, London, England.
Journal, vol. 2.
- APPLETON, D. AND CO., New York City (by S. E. Meek).
Eugene McCarthy: Familiar fish (gift).
- ARIZONA AGRICULTURAL EXPERIMENT STATION, Tucson, Ariz.
Bulletin, current nos. (gift).
- ARMOUR INSTITUTE, Chicago.
Year book, 1899-1900 and 1900-1901.
- ARTHUR, J. C. (the author), Lafayette, Ind.
Laboratory exercises in vegetable physiology.
13 pamphlets.
- ASA GRAY BULLETIN, Tacoma Park, D. C.
Bulletin, current nos.
- ASIATIC SOCIETY OF BENGAL, Calcutta, India.
Journal, current nos.
Proceedings, current nos.
- ASSOCIATION OF AMERICAN ANATOMISTS, Washington, D. C.
Proceedings, 12th and 13th sessions.
- AUGSBURG. NATURWISSENSCHAFTLICHER VEREIN FÜR SCHWABEN AND NEUBURG, Augsburg, Germany.
Bericht, 1898.
- AUSTRALIAN MUSEUM, Sydney, New South Wales.
Memoirs, vol. 4, pts. 1 and 2.
Records, vol. 3, pts. 6 and 7.
- AUSTRALASIA. ROYAL GEOGRAPHICAL SOCIETY, Adelaide, South Australia.
Journal, current nos.
Proceedings, vols. 2 and 3.
- AUTOMOBILE REVIEW CO., Chicago.
Journal, current nos. (gift).
- BAKER, FRANK C. (the author), Chicago.
Notes on a collection of pleistocene shells.
- BALTIMORE AND OHIO RAILROAD, Baltimore, Md.
Book of the royal blue, current nos.
- BAMBERG. NATURFORSCHENDE GESELLSCHAFT, Bamberg, Germany.
Bericht, 2d to 7th, and 9th to 17th.
- BARBER, E. A. (the author), Philadelphia, Pa.
Anglo-American pottery.
- BASCOM, FLORENCE (the author), Bryn Mawr, Pa.
Volcanics of Neposet Valley, Massachusetts.
- BEECHER, C. E. (the author), New Haven, Conn.
Two pamphlets.
- BELOIT COLLEGE, Beloit, Wis.
Annual catalogue, 53d.
- BERGENS MUSEUM, Bergen, Norway.
Aarbog for 1898, and 1899, pt. 1.
Report on Norway marine investigations, 1895-97.
5 monographs.

- BERLIN. GESELLSCHAFT FÜR ERDKUNDE, Berlin, Germany.
 Bibliotheca geographica, vol. 5.
 Verhandlungen, vol. 26, and vol. 27, nos. 1, 2, 4 and 5.
 Zeitschrift, vol. 34, and vol. 35, no. 1.
- BERLIN. KÖNIGLICHE BIBLIOTHEK, Berlin, Germany.
 Jahres verzeichniss der an den deutschen universitäten erscheinenden
 schriften, 1898-99.
- BERLIN. K. BOTANICAL GARTEN UND MUSEUM, Berlin, Germany.
 Notizblatt, nos. 20-22.
- BERLIN. K. MUSEUM FÜR VÖLKERKUNDE, Berlin, Germany.
 Veröffentlichungen, vol. 6, nos. 2-4.
- BERLIN. K. PREUSSISCHE AKADEMIE DER WIS., Berlin, Germany.
 Sitzungsberichte, current nos.
- BERLIN. VEREIN FÜR VOLKSKUNDE, Berlin, Germany.
 Zeitschrift, current nos.
- BERLIN. ZOOLOGISCHE SAMMLUNG, Berlin, Germany.
 Bericht, 1898, 1899.
 Führer, 1899.
 Mitteilungen, vol. 1, no. 4.
- BERLINER GESELLSCHAFT FÜR ANTHROPOLOGIE, Berlin, Germany.
 Zeitschrift für ethnologie, current nos.
- BERN. HOCHSCHUL-BIBLIOTHEK, Bern, Switzerland.
 4 inaugural dissertations.
- BERNICE PAUCHI BISHOP MUSEUM, Honolulu, Hawaii.
 Fauna Hawaiiensis, vol. 2, pts. 1, 2 and 3.
 Memoirs, vol. 1, no. 1.
- BEYER, G. E. (the author), New Orleans, La.
 The ivory-billed wood-pecker in Louisiana.
 2 pamphlets.
- BIOLLY, P. (the author), San Jose, Costa Rica.
 Moluscos de Costa Rica.
 3 pamphlets (gift).
- BLACK DIAMOND COMPANY, Chicago.
 Black diamond, current nos. (gift).
- BOMBAY PRESIDENCY. DEPARTMENT OF LAND RECORDS AND
 AGRICULTURE, Bombay, India.
 Annual report of the rail and road-borne trade, 1898-99.
 Returns of the rail and road-borne trade, April to September, 1899.
- BOSTON. MUSEUM OF FINE ARTS, Boston, Mass.
 Annual report, 24th.
- BOSTON PUBLIC LIBRARY, Boston, Mass.
 Annual list of new and important books, 1898-99.
 Annual report, 1899-1900.
 Monthly bulletin, current nos.
- BOSTON SOCIETY OF NATURAL HISTORY, Boston, Mass.
 Proceedings, current nos.
- BOSTON TRANSIT COMMISSION, Boston, Mass.
 Fifth annual report.
 1 pamphlet (gift).
- BOTANICAL SOCIETY OF AMERICA, Ithaca, N. Y.
 Publication 13 (gift).
- BRIDGEPORT PUBLIC LIBRARY, Bridgeport, Conn.
 Annual report, 19th.
- BRINTON, D. G. (the author), Media, Pa.
 The Calchaqui.
 1 pamphlet.

- BRISTOL MUSEUM AND REFERENCE LIBRARY, Bristol, England.
Report, 1899.
- BRITISH ASSOCIATION FOR THE ADVANCE OF SCIENCE, London,
England.
Report for 1899.
- BRITISH COLUMBIA BUREAU OF MINES, Victoria, British Columbia.
Annual report, 1899.
- BRITISH MUSEUM, London, England.
Hand-list of the genera and species of birds, vol. 1.
Report, 1899.
4 catalogues.
- BROOKLYN LIBRARY, Brooklyn, N. Y.
Annual report, 42d.
Bulletin, current nos.
- BROWN UNIVERSITY, Providence, R. I.
Catalogue, 1899-1900.
- BRUNER, LAWRENCE (the author), Lincoln, Neb.
Some notes on Nebraska birds (gift).
- BRUNET, L., Paris, France.
Revue générale des sciences, vols. 7-9, and current nos.
- BRUXELLES. ACADÉMIE ROYALE DE BELGIQUE, Bruxelles, Belgium.
Annuaire, 1900.
Bulletin, 1899, nos. 8-12, and 1900, nos. 1-4.
- BRUXELLES. SOCIÉTÉ D'ARCHEOLOGIE, Bruxelles, Belgium.
Annals, vol. 13, pts. 3 and 4, and vol. 14, pts. 1 and 2.
Annuaire, vol. 11.
- BRUXELLES. SOCIÉTÉ ROYALE LINNÉENNE, Bruxelles, Belgium.
Bulletin, current nos.
- BÜCKING, H., Strassburg, Elsass, Germany.
Beiträge zur geologie von Celebes.
2 pamphlets.
- BUENOS AIRES. INSTITUTO GEOGRAFICO ARGENTINO, Buenos
Aires, Argentina.
Boletín, vol. 20, nos. 1-6.
- BUENOS AIRES. MUSEO NACIONAL, Buenos Aires, Argentina.
Comunicaciones, current nos.
- BUFFALO PUBLIC LIBRARY, Buffalo, N. Y.
Annual report, 3d.
Class room libraries for public schools.
- BUFFALO SOCIETY OF NATURAL SCIENCES, Buffalo, N. Y.
Bulletin, vol. 6, nos. 2, 3 and 4.
- BUFFUM, W. A. (the author), New York City.
The tears of the Heliades (gift).
- BURT, E. A., (the author), Middlebury, Vt.
Key to the genera of basidiomycetes of Vermont.
- BUSCHAN, GEORGE (the author), Stettin, Germany.
Zähne anthropologisch und morphologisch.
- CALL, R. E., Flatbush, Brooklyn, N. Y.
Call: The unionidæ of Arkansas.
Gill: Families of mammals.
Hayden: Geological atlas of Colorado.
Loew: Diptera of North America.
New York State Cabinet: Annual report, 10th.
Ohio Geological Survey: Report, 1869 and '70.
Rendu: Glaciers of Savoy.
Wyman: Shell mounds of St. John's river.

- CALCUTTA. ROYAL BOTANIC GARDENS, Calcutta, India.
Annual report on the Government Cinchona Plantation in Sikkim,
1897-'98.
- CALIFORNIA ACADEMY OF SCIENCES, San Francisco, Cal.
Proceedings, current nos.
- CALIFORNIA AGRICULTURAL EXPERIMENT STATION, Berkeley, Cal.
Bulletin, current nos.
- CALIFORNIA STATE LIBRARY, Sacramento, Cal.
Bi-monthly bulletin, current nos.
Special bulletin, no. 1.
- CALIFORNIA STATE MINING BUREAU, San Francisco, Cal.
Bulletin, nos. 13, 14, 16 and 17.
- CALIFORNIA UNIVERSITY, Berkeley, Cal.
Annual report, 1898-'99.
Bulletin of the Dep't of Geology, vol. 2, no. 6.
Catalogue of graduates, 1864-'99.
International competition for the Phœbe Hearst architectural plan.
Library bulletin, no. 12.
University chronicle, current nos.
- CAMBRIDGE. MUSEUMS AND LECTURE ROOMS SYNDICATE, Cam-
bridge, England.
Annual report, 34th.
- CAMBRIDGE PUBLIC LIBRARY, Cambridge, Mass.
Annual report, 1899.
Bulletin, current nos.
- CAMBRIDGE UNIVERSITY LIBRARY, Cambridge, England.
Report, 1899.
- CANADA. GEOLOGICAL SURVEY, Ottawa, Canada.
Annual report, 1897.
2 pamphlets.
- CANADA ROYAL SOCIETY, Ottawa, Canada.
Proceedings and transactions, ser. 2, vol. 4.
- CANADIAN INSTITUTE, Toronto, Canada.
Proceedings, current nos.
Transactions, vol. 6.
- CARNEGIE INSTITUTE, Pittsburg, Pa.
Fourth annual exhibition.
Fourth celebration of Founder's day.
- CARNEGIE LIBRARY, Pittsburg, Pa.
Annual report, 4th.
- CARNEGIE MUSEUM, Pittsburg, Pa.
Annual report, 1900.
Prize essay contest, 1899.
- CARPENTER, G. H., Dublin, Ireland.
Irish naturalist, current nos.
- CASE SCHOOL OF APPLIED SCIENCE, Cleveland, Ohio.
Catalogue, 1899-1900.
History and description.
- CATHOLIC UNIVERSITY, Washington, D. C.
Catholic university bulletin, current nos.
- CENTRAL ART ASSOCIATION, Chicago.
Arts for America, current nos. (gift).
- CEULENEER, ADOLF, DE (the author), Ghent, Belgium.
Type d' Indien du Nouveau Monde.
1 pamphlet.
- CHAUVERO, ALFREDO, City of Mexico, Mexico.
Interpretación del código Borgiano.



- CHICAGO ACADEMY OF SCIENCES, Chicago.
Bulletin, vol. 2, nos. 3 and 4.
- CHICAGO ART INSTITUTE, Chicago.
Annual report, 20th.
Catalogue of twelfth annual exhibition by American artists.
Catalogues of works of H. D. Murphy, A. Herter and J. F. Raffælli.
Exhibition of works by Chicago artists.
3 catalogues.
- CHICAGO HISTORICAL SOCIETY, Chicago.
Annual report, 1899 and 1900.
- CHICAGO INSTITUTE, Chicago.
Catalogue, 1900-1901.
Preliminary announcement (gift).
- CHICAGO UNIVERSITY, Chicago.
Annual register, 1898-'99 and 1899-1900.
Journal of geology, current nos.
President's report, 1897-'98 and 1898-'99.
- CHRISTIANIA. UNIVERSITETS BIBLIOTHEKET, Christiania, Norway.
Kjerulf: Norske bergarter.
- CINCINNATI MUSEUM ASSOCIATION, Cincinnati, Ohio.
Annual report, 10th, 1899.
Catalogue of seventh annual exhibition of American artists.
Fourth annual exhibition of the society of western artists.
- CINCINNATI PUBLIC LIBRARY, Cincinnati, Ohio.
Bulletin of books added, 1899.
- CINCINNATI SOCIETY OF NATURAL HISTORY, Cincinnati, Ohio.
Journal, vol. 19, nos. 5 and 6.
- CINCINNATI TECHNICAL SCHOOL, Cincinnati, Ohio.
Annual catalogue, 1898-'99.
- CLAUSTHAL. KÖNIGLICHE BERGAKADEMIE, Clausthal, Germany.
Programm, 1899-1900.
- CLEVELAND PUBLIC LIBRARY, Cleveland, Ohio.
Annual report, 31st.
- CLIGNY, A. (the author), Paris, France.
Vertèbres et coeurs lymphatiques des ophiidiens (gift).
- COLBY COLLEGE, Waterville, Me.
Annual catalogue, 1899-1900.
- COLLETT, ROBERT, Christiania, Norway.
Scientific results of the Norway north polar expedition, pt. 4.
2 pamphlets.
- COLLIERY ENGINEER CO., Scranton, Pa.
Mines and minerals, current nos. (gift).
- COLLINGE, W. E., Birmingham, England.
On some land mollusks from Java.
1 pamphlet.
- COLORADO AGRICULTURAL EXPERIMENT STATION, Fort Collins, Colo.
Annual report, 12th.
Bulletin, current nos.
- COLORADO COLLEGE SCIENTIFIC SOCIETY, Colorado Springs, Colo.
Colorado college studies, vol. 8 (gift).
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Bulletin, no. 2.
2 pamphlets.
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Commendations for the observation of the birthdays of Washington and Lincoln.
1 pamphlet.

COLUMBIA UNIVERSITY, New York City.

Annual report, 1899.

Catalogue, 1899-1900.

Quarterly, current nos.

CONNECTICUT ACADEMY OF ARTS AND SCIENCES, New Haven, Conn.

Transactions, vol. 10, pt. 1.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION, New Haven, Conn.

Annual report, 23d, 1899.

Bulletin, current nos.

COOPER UNION, New York City.

Annual report, 1899.

CORNELL UNIVERSITY AGRICULTURAL EXPERIMENT STATION, Ithaca, N. Y.

Bulletin, current nos. (gift).

CZERNOWITZ. FRANZ-JOSEPHS-UNIVERSITÄT, Czernowitz, Austria.

Verzeichnis der öffentlichen vorlesungen, 1900-1901.

Uebersicht der akademischen behörden, 1900-1901.

2 pamphlets.

DARTMOUTH COLLEGE, Hanover, N. H.

Catalogue, 1899-1900.

DAVENPORT ACADEMY OF NATURAL SCIENCES, Davenport, Iowa.

Proceedings, vol. 7.

DAVIS, W. M., Cambridge, Mass.

Glacial erosion in the Valley of the Ticino.

4 pamphlets.

DAWKINS, BOYD (the author), Manchester, England.

The present phase of prehistoric archæology.

3 pamphlets.

DELAWARE COLLEGE AGRICULTURAL EXPERIMENT STATION, Newark, Del.

Bulletin, current nos.

DENISON, CHARLES (the author), Denver, Colo.

Climates of the United States in colors.

The tuberculosis crusade and its problems (gift).

DEPEW, CHAUNCEY M., (the author), New York City.

The government of the Philippine islands (gift).

DETROIT MUSEUM OF ART, Detroit, Mich.

Annual report, 1898-'99.

DETROIT PUBLIC LIBRARY, Detroit, Mich.

Annual report, 35th, 1899.

DEUTSCHE GEOLOGISCHE GESELLSCHAFT, Berlin, N., Germany.

Zeitschrift, vols. 51 and 52.

DEUTSCHE GESELLSCHAFT FÜR NATUR UND VÖLKERKUNDE OSTASIENS, Tokio, Japan.

Mittheilungen, vol. 7, pt. 3, and vol. 8, pt. 1.

DEXTER, FRANKLIN, Cambridge, Mass.

Additional observations on the morphology of the digestive tract of the cat (gift).

DIESERUD, JUUL, Field Columbian Museum.

Pilling: Bibliography of the Chinookan languages.

Pilling: Bibliography of the Salishan languages (gift).

DIAL PUBLISHING CO., Chicago.

The Dial, current nos. (gift).

DISTRICT OF COLUMBIA PUBLIC LIBRARY, Washington, D. C.

Report, 1898-'99 (gift).

- DONALDSON, H. H., Chicago.
Observations on the weight and length of the central nervous system.
1 pamphlet.
- DRESDEN K. SAMMLUNGEN FÜR KUNST UND WISSENSCHAFT,
Dresden, Germany.
Bericht, 1896-'97.
- DREW THEOLOGICAL SEMINARY, Madison, N. J.
Year book, 1899-1900.
- EAST KENT SCIENTIFIC AND NATURAL HISTORY SOCIETY, Canterbury, Kent.
Southeastern naturalist, vol. 2, pt. 2.
- EDINBURGH MUSEUM OF SCIENCE AND ART, Edinburgh, Scotland.
Report for 1898.
- EDINBURGH ROYAL SOCIETY, Edinburgh, Scotland.
Proceedings, vol. 22, no. 6.
- EIGENMANN, C. H. (the author), Bloomington, Ind.
Contributions from the zoological laboratory of Indiana University.
Eyes of the blind vertebrates of North America, pt. 1.
The blind-fishes.
The Indiana University biological station.
- ELECTRICAL ENGINEERING PUBLISHING CO., Chicago.
Telephone magazine, current nos. (gift).
- ELECTRICIAN PUBLISHING CO., Chicago.
Western Electrician, current nos. (gift).
- ELLIOT, D. G., Field Columbian Museum.
Rainfall, flow of streams and storage.
2 pamphlets (gift).
- ELLIS, J. B., Newfield, N. J.
On new species of fungi.
- ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA, Pittsburg, Pa.
Proceedings, current nos.
- ENOCH PRATT FREE LIBRARY, Baltimore, Md.
Annual report, 14th.
Bulletin, current nos.
- ERYTHEA, Berkeley, Cal.
Erythea, current nos.
- ESSEX INSTITUTE, Salem, Mass.
Historical collections, vol. 35, no. 4, and vol. 36, nos. 1-3.
- EVANS, A. W., New Haven, Conn.
Hawaiian hepaticæ.
2 pamphlets.
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Publications 10.
- FINSCH, OTTO, Leyden, Holland.
Leyden Museum notes, vol. 22, nos. 6, 7 and 9.
- FLORIDA AGRICULTURAL EXPERIMENT STATION, Lake City, Fla.
Bulletin, current nos. (gift).
- FORBES, H. O. (the author), Liverpool, England.
On a collection of stone implements in the Mayer Museum (gift).

- FOREST AND STREAM PUBLISHING CO., Chicago.
Forest and stream, rod and gun, current nos. (gift).
- FÖRSTEMANN, E. (the author), Dresden, Germany.
Drei inschriften von Palenque.
- FRANCE. MINISTERE DE LA MARINE, Paris, France.
Bulletin de la marine marchande, vol. 1, nos. 6-10, and vol. 2, nos. 1, 2, 4 and 5 (gift).
- FRANKFORT - ON - THE - MAIN. SENCKENBERGIAN SOCIETY OF
NATURALISTS, Frankfort-on-the-Main, Germany.
Berichte, 1899.
- FRANKLIN AND MARSHALL COLLEGE, Lancaster, Pa.
List of graduates, etc.
Obituary record, vol. 1 (gift).
- FRANKLIN INSTITUTE, Philadelphia, Pa.
Journal, current nos.
- FREIBERG K. SACHS. BERGAKADEMIE, Freiberg, Germany.
Programm, 1900-1901.
- FREIBURG. NATURFORSCHENDE GESELLSCHAFT, Freiburg, Germany.
Berichte, vol. 10, and vol. 11, pt. 1.
- FRIEDLANDER, R., AND SOHN, Berlin, Germany.
Naturæ novitates, current nos.
- FRITSCH, KARL (the author), Wien, Austria.
Nachruf an A. Kerner v. Marilaun.
2 pamphlets.
- FÜRBRINGER, MAX, Jena, Germany.
Vergleichende anatomie der wirbeltiere.
1 pamphlet.
- GATSCHE, A. S., Washington, D. C.
7 Mexican census reports.
- GENEVE. CONSERVATOIRE & JARDIN BOTANIKES, Geneva, Switzerland.
Annuaire, 1898.
- GENEVE. SOCIETE DE PHYSIQUE ET D'HISTOIRE NATURELLE,
Geneva, Switzerland.
Memoires, vol. 28, nos. 8 and 9.
Memoires, vol. 29, no. 7.
Memoires, vol. 30, nos. 1, 2 and 6.
Memoires, vol. 31, no. 2, and 2d pt., nos. 1 and 2.
Memoires, vol. 32, no. 8 and centenary.
Memoires, vol. 33, nos. 1, 7, 8 and 9.
- GENOVA. MUSEO CIVICO DI STORIA NATURALE, Genova, Italy.
Annali, ser. 2, vol. 19.
- GEOLOGICAL SOCIETY OF AMERICA, Rochester, N. Y.
Bulletin, current nos.
- GEORGIA AGRICULTURAL EXPERIMENT STATION, Experiment, Ga.
Bulletin, current nos. (gift).
- GIESSEN. GROSSH. HESSISCHE LUDWIGS UNIVERSITÄT, Giessen, Germany.
Akademische rede, 1898.
15 inaugural dissertations.
- GÖTEBORG. K. VETENSKAPS- OCH - VITTERHETS - SAMHÄLLE, Gothenburg, Sweden.
Handlingar, ser. 4, vols. 1 and 2.
- GÖTTINGEN. K. GEOLOGISCHES MUSEUM, Göttingen, Germany.
2 pamphlets.

- GÖTTINGEN. K. GEORG-AUGUST-UNIVERSITÄT, Göttingen, Germany.
Chronik, 1898-'99.
Verzeichnes des personals, etc., 1899-1900.
Verzeichnis der vorlesungen, sommer, 1900.
Verzeichnis der vorlesungen, winter, 1900-1901.
63 inaugural dissertations.
2 pamphlets.
- GRAY HERBARIUM, Cambridge, Mass.
Contributions, new ser., nos. 18 and 19.
10 pamphlets.
- GREAT BRITAIN. GEOLOGICAL SURVEY, London, England.
Summary of progress for 1899.
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Bulletin, vol. 2, nos. 3 and 4.

PEORIA PUBLIC LIBRARY, Peoria, Ill.
Monthly bulletin, current nos.
3 pamphlets.

PEPPER, G. H., New York City.
1 pamphlet (gift).

PERKINS INSTITUTE and MASSACHUSETTS SCHOOL FOR THE
BLIND, Boston, Mass.
Annual report, 68th.

PHARMACEUTICAL REVIEW PUBLISHING CO., Milwaukee, Wis.
Pharmaceutical archives, current nos.
Pharmaceutical review, current nos.

PHILADELPHIA ACADEMY OF NATURAL SCIENCES, Philadelphia, Pa.
Catalogue of duplicate books.
Proceedings, current nos.

PHILADELPHIA COLLEGE OF PHARMACY, Philadelphia, Pa.
American journal of pharmacy, current nos. (gift).

PHILADELPHIA COLLEGE OF PHYSICIANS, Philadelphia, Pa.
Transactions, vol. 21.

PHILADELPHIA COMMERCIAL MUSEUM, Philadelphia, Pa.
American trade with Siam.
Notes on Paraguay.
Scientific bulletin, no. 1.
Siberia a coming market.

PHILADELPHIA. NUMISMATIC AND ANTIQUARIAN SOCIETY,
Philadelphia, Pa.
Proceedings, 1892-'98.

PHILLIPS, W. A., Evanston, Ill.
1 pamphlet.

PIETERS, A. J., Washington, D. C.
Farmers' bulletin, no. 111.
One circular (gift).

POLLARD, C. L., Washington, D. C.
2 pamphlets.

PORTER, T. C., Easton, Pa.
2 pamphlets.

PRAG. K. CARL-FERDINANDS-UNIVERSITÄT, Prag, Bohemia.
Ordnung der vorlesungen, sommer, 1900.
Ordnung der vorlesungen, wintersemester, 1899-1900, 1900-1901.
Personalstand, 1899-1900, 1900-1901.

PRATT INSTITUTE, Brooklyn, N. Y.
Monthly bulletin, current nos.
Report, 1898-'99.

PRESTO CO., Chicago.
Presto, current nos. (gift).

PRESTON, H. L., Rochester, N. Y.
4 pamphlets.

PRINCETON UNIVERSITY, Princeton, N. J.
Bulletin, current nos.
Catalogue, 1899-1900.

PROVIDENCE ATHENÆUM, Providence, R. I.
Annual report, 64th.

PROVIDENCE PUBLIC LIBRARY, Providence, R. I.
Monthly bulletin, current nos.

- PURDUE UNIVERSITY, Lafayette, Ind.
Annual catalogue.
Annual report, 1898-'99.
Selected views.
- PUTNAM, F. W., Cambridge, Mass.
A problem of American anthropology.
- QUEENSLAND. ROYAL SOCIETY OF, Brisbane, Queensland.
Proceedings, vol. 15.
- QUEVEDO, S. A. LAFONE, Pilciao, Catamarca, Argentina.
2 pamphlets.
- RAILWAY LIST CO., Chicago.
Railway master mechanic, current nos. (gift).
- RAILWAY REVIEW PUBLISHING CO., Chicago.
Railway review, current nos. (gift).
- RANDALL, T. A., & CO., Indianapolis, Ind.
Clay worker, current nos. (gift).
- REDWOOD LIBRARY AND ATHENÆUM, Newport, R. I.
Annual report, 169th.
- RHODE ISLAND AGRICULTURAL EXPERIMENT STATION, Kingston, R. I.
Annual report, 12th, 1898-'99.
Bulletin, current nos. (gift).
- RICHE, CHARLES, Paris, France.
Revue scientifique, current nos.
- RIGGS, E. S., Field Columbian Museum.
Schuchert, Charles: On the lower silurian fauna of Baffin land (gift).
- RIVIÈRE, EMILE (the author), Paris, France.
La grotte des spélugues.
10 pamphlets.
- ROCHESTER ACADEMY OF SCIENCE, Rochester, N. Y.
Proceedings, vol. 3, pt. 2.
- ROME. REALE ACCADEMIA DEI LINCEI, Roma, Italy.
Atti, current nos.
- ROYAL ASIATIC SOCIETY, CHINA BRANCH, Shanghai, China.
Journal, no. 31.
- ROYAL ASIATIC SOCIETY, STRAITS BRANCH, Singapore, Straits Settlements.
Journal, no. 33.
- RUSSELL, FRANK (the author), Cambridge, Mass.
Athabaskan myths.
- ST. LOUIS ACADEMY OF SCIENCE, St. Louis, Mo.
Transactions, current nos.
- ST. LOUIS PUBLIC LIBRARY, St. Louis, Mo.
New year announcement of the Bureau of Geology, 1900.
- ST. LOUIS UNIVERSITY, St. Louis, Mo.
Catalogue, 1899-1900.
- ST. VIATEUR'S COLLEGE, Bourbonnais, Ill.
The Viatorian, current nos.
- SALEM PUBLIC LIBRARY, Salem, Mass.
Bulletin, current nos.
Report for 1899.
- SAN FRANCISCO. BOARD OF PARK COMMISSIONERS, San Francisco, Cal.
Annual report, 28th, 1899 (gift).
- SAN FRANCISCO FREE PUBLIC LIBRARY, San Francisco, Cal.
Report, 1898-'99.

- SAVILLE, M. H., New York City.
4 pamphlets.
- SCHARIZER, RUDOLPH, Czernowitz, Hungary.
1 pamphlet.
- SCHMALZ, J. B., Etowah P. O., N. C.
2 pamphlets (gift).
- SCHMIDT, EMIL (the author), Leipzig, Germany.
Physische anthropologie.
- SERGI, GIUSEPPE, Rome, Italy.
3 pamphlets.
- SKIFF, F. J. V., Field Columbian Museum.
American Institute of Mining Engineers Transactions, vol. 28.
California mines and minerals.
57 pamphlets (gift).
- SMITH, FRANK, Urbana, Ill.
2 pamphlets (gift).
- SMITH, C. W., Washington, D. C.
American monthly microscopical journal, current nos.
- SMITH, G. O., Washington, D. C.
Camasland : a valley remnant.
1 pamphlet.
- SMITH, J. B., New Brunswick, N. J.
A hundred new moths of the family noctuidæ (gift).
- SMITH, J. D., Baltimore, Md.
Enumeratio plantarum Guatemalensium, pt. 5.
- SMITHSONIAN INSTITUTION, Washington, D. C.
Smithsonian miscellaneous collections, no. 1173.
- SNYDER, J. F. (the author), Virginia, Ill.
The field for archæological research in Illinois.
- SOCIEDAD CIENTIFICA "ANTONIO ALZATE," Mexico, Mexico.
Memorias y revista, current nos.
- SOCIEDAD ESPAÑOLA DE HISTORIA NATURAL, Madrid, Spain.
Anales, ser. 2, vol. 8.
- SOCIETÀ GEOGRAFICA ITALIANA, Rome, Italy.
Bollettino, current nos.
- SOCIETÀ ITALIANA DI ANTROPOLOGIA, Firenze, Italy.
Archivio per l'antropologia, vol. 29, pts. 1-3.
- SOCIÉTÉ NEUCHATELOISE DE GÉOGRAPHIC, Neuchâtel, Switzerland.
Bulletin, vol. 12.
- SOCIÉTÉ D'HISTOIRE NATURELLE DES ARDENNES, Charleville, France.
Bulletin, vol. 5.
- SOCIÉTÉ ROYALE MALACOLOGIQUE DE BELGIQUE, Bruxelles, Belgium.
Bulletins, 1899, pp. 33-128 (gift).
- SOCIÉTÉ DES SCIENCES NATURELLES DE REIMS, Reims, France.
Bulletin, vols. 1-8, 1892-'99.
- SOCIÉTÉ DES SCIENCES NATURELLES DE SAONE-et-LOIRE, Chalon-sur-Saone, France.
Bulletin, new ser., vol. 6, nos. 1-4.
- SOCIETY FOR PSYCHICAL RESEARCH, Boston, Mass.
Proceedings, vol. 15, pts. 36, 37.
- SOUTH AFRICAN MUSEUM, Cape Town, South Africa.
Annals, vol. 1, pts. 1 and 3.
Annual report, 1899.
- SOUTH AFRICAN PHILOSOPHICAL SOCIETY, Cape Town, Cape Colony.
Transactions, vol. 9, no. 1, and vol. 10, pt. 1, vol. 11, pt. 1.

- SOUTH AUSTRALIA MUSEUM, Adelaide, South Australia.
Report, 1898-'99.
- SOUTH AUSTRALIA ROYAL SOCIETY, Adelaide, South Australia.
Memoirs, vol. 1, pts. 1 and 2.
Transactions, vol. 16, vol. 23, pts. 1 and 2, and vol. 24, pt. 1.
- SOUTH CAROLINA AGRICULTURAL EXPERIMENT STATION, Clemson College, S. C.
Bulletin, current nos. (gift).
- SOUTH DAKOTA AGRICULTURAL EXPERIMENT STATION, Rapid City, S. D.
Bulletin, current nos. (gift).
- SPRINGFIELD CITY LIBRARY ASSOCIATION, Springfield, Mass.
Annual report, 39th.
Bulletin, current nos.
Catalogue of the D. A. Wells economic library.
- STARR, FREDERICK, Chicago.
Recent Mexican study of the native languages of Mexico.
The art of Benin city.
6 pamphlets.
- STATEN ISLAND NATURAL SCIENCE ASSOCIATION, New Brighton, Staten Island.
Proceedings, current nos.
- STOCKHOLM. K. VENETSKAPS-AKADEMIEN, Stockholm, Sweden.
Bihang, vol. 24.
Handlingar, vol. 31.
Öfversigt af förhandlingar, vols. 55, 56.
- STOCKHOLM. K. VITTERHETS HISTORIE OCH ANTIQUITIES AKAD., Stockholm, Sweden.
Antiquarisk tidskrift för Sverige, vol. 14, pt. 1.
Catalogue sommaire du Musée des Antiquités Nationales.
Der Orient und Europa.
Manadsblad, 1872-'86.
- STOEDTNER, FRANZ, Berlin, Germany.
Katalogue von lichtbildern über Italienesche Kunstgeschichte (gift).
- STORM, GUSTAV, Christiania, Norway.
Studier over vinlands-reiserne (gift).
- STORRS AGRICULTURAL EXPERIMENT STATION, Storrs, Conn.
Annual report, 11th.
Bulletin, current nos. (gift).
- STRASSBURG. KAISER-WILHELMS-UNIVERSITÄT, Strassburg, Germany.
Amtliches verzeichniss des personals, 1898-'99.
Shiftungsfest, 1898 and 1899.
Verzeichniss der vorlesungen, 1898-'99.
28 inaugural dissertations.
- STRETTON, C. E., Leicester, England.
Journal of the Society of Arts, current nos.
Locomotive engineers' and firemen's monthly journal, current nos.
1 pamphlet (gift).
- SYDERE, A. H., Toronto, Ontario.
Annual report of the clerk of forestry, Ontario, 1899.
Morris: Treaties of Canada with the Indians.
56 government reports.
- SYDNEY. BOTANIC GARDENS, Sydney, New South Wales.
4 pamphlets.
- TABOR COLLEGE, Tabor, Iowa.
Catalogue, 1900-1901.

- TAUNTON PUBLIC LIBRARY, Taunton, Mass.
Additions, new ser., no. 6.
Annual report, 1899 (gift).
- TAYLOR, H. W., Washington, D. C.
Index to subjects of documents and reports, 55th congress, 2d session.
Report of Daughters of the American Revolution, 1890-1897.
- TEPPER, J. G. O. (the author), Norwood, South Australia.
Observations on the propagation of *cymodocea antarctica*, with 6 other articles.
1 reprint on forestry.
Brown, H. Y. L.: Report on the geological character of Barossa and Para Wirra gold fields.
- TOKYO BOTANICAL SOCIETY, Tokyo, Japan.
Botanical magazine, current nos.
- TOOKER, W. W., Sag Harbor, N. Y.
1 pamphlet.
- TORINO. MUSEI DI ZOOLOGIA ED ANATOMIA COMPARATA, Torino, Italy.
Bolletino, current nos.
- TORINO. R. ACCADEMIA DELLE SCIENZE, Torino, Italy.
Atti, current nos.
Osservazioni meteorologiche, 1899.
- TORONTO UNIVERSITY, Toronto, Canada.
Studies, historical, vol. 1, pp. 77-155.
Studies, psychological, ser., nos. 2 and 3.
Studies, physiological ser., nos. 1 and 2.
- TORREY BOTANICAL CLUB, New York City.
Bulletin, current nos.
- TRING ZOOLOGICAL MUSEUM, Tring, England.
Novitates zoologicæ, current nos.
- TRINITY COLLEGE, Dublin, Ireland.
Hermathena, nos. 23 and 25.
- TÜBINGEN. K. UNIVERSITÄTS-BIBLIOTHEK, Tübingen, Germany.
Tübingen universitätsschriften, 1898-'99.
Vorschriften für die studierenden.
- TUFTS COLLEGE, Tufts College, Mass.
Studies, no. 6.
- TURNER, H. W. (the author), Washington, D. C.
Geological atlas of the United States, Marysville and Smartsville folios.
Granitic rocks of the Sierra Nevada.
6 pamphlets.
- UNION LEAGUE CLUB, Chicago.
Catalogue of paintings and other works of art (gift).
- U. S. AGRICULTURAL DEPARTMENT, Washington, D. C.
Annual report, 1898-'99.
Annual report, 15th, of the Bureau of Animal Industry.
Author and subject cards for Farmers' bulletin.
Author and subject cards for Yearbook.
Contributions from the U. S. National Herbarium, vol. 5, no. 4.
Experiment station record, current nos.
Experiment Station Office bulletin, no. 80.
North American fauna, nos. 16-18.
Yearbook, 1899.
Bulletins, 83.
Circulars, 88.

- U. S. AGRICULTURAL DEPARTMENT, FORESTRY DIVISION, Washington, D. C.
Bulletin, nos. 24-26.
Report, 1899.
- U. S. AGRICULTURAL DEPARTMENT, SOILS DIVISION, Washington, D. C.
Report, 64, 1899, with maps.
- U. S. AMERICAN REPUBLICS BUREAU, Washington, D. C.
Costa Rica, by R. Villafranca.
Monthly bulletin, current nos.
- U. S. BUREAU OF THE MINT, Washington, D. C.
Reports, 1896-'98, and 1898-'99.
Report on precious metals, 1898 (gift).
- U. S. CIVIL SERVICE COMMISSION, Washington, D. C.
Report, 1898-'99 (gift).
- U. S. COAST AND GEODETIC SURVEY, Washington, D. C.
Report, 1897-'98.
- U. S. COMMISSION OF INDIAN AFFAIRS, Washington, D. C.
Annual report of the board, 1895-'99.
Annual report of the Commissioner, 1895-'96, 1897-'98, and 1899, pt. 1.
- U. S. EDUCATION BUREAU, Washington, D. C.
Annual report, 1897-'98, vols. 1 and 2.
Helen Keller souvenir, no. 2.
- U. S. FISH AND FISHERIES COMMISSION, Washington, D. C.
Bulletin, vol. 18.
Report, 1899.
- U. S. GEOLOGICAL SURVEY, Washington, D. C.
Annual report, 19th, pts. 2, 3 and 5, with 5 atlases.
Annual report, 20th, pts. 1-7.
Bulletin, 157-162.
Mineral products of U. S. from 1889 to 1898.
Monographs 32, pt. 2, 33, 34 and 36-38.
2 pamphlets.
- U. S. INTERIOR DEPARTMENT, Washington, D. C.
Annual report of the Commissioner of Patents, 1898.
Instructions to enumerators, 12th census.
- U. S. LIBRARY OF CONGRESS, Washington, D. C.
Copyright enactments 1783-1900, bulletin 3.
Lists of books relating to Cuba, Hawaii, canal and railway routes.
4 pamphlets.
Report, 1899.
- U. S. MILITARY ACADEMY, West Point, N. Y.
Official register.
2 annual reports.
- U. S. NATIONAL MUSEUM, Washington, D. C.
Bulletin, no. 39, pts. M and N.
Proceedings, vol. 21.
Report, 1896-'97.
Report upon condition and progress, 1896-'97.
- U. S. NAVAL ACADEMY, Annapolis, Md.
Annual register, 1899-1900.
- U. S. STATE DEPARTMENT, Washington, D. C.
Consular reports, current nos.
Exports declared for the United States, 1899.
Intercontinental Railway Commission reports, 1895-'98.
Review of the world's commerce, 1899.
Special consular reports, vols. 16-18.
- U. S. TREASURY DEPARTMENT, Washington, D. C.
Fur seals and fur-seal islands of the north Pacific ocean, vol. 3.

- UPSALA. K. UNIVERSITETS-BIBLIOTEKET, Upsala, Sweden.
Bulletin of the Geological Institution, vol. 4, pts. 1 and 2.
Från svenska borrhöggar.
Mindre kända malmfyndigheter inom Jukkasjärvi malmtrakt, with atlas.
6 pamphlets.
- UTAH. AGRICULTURAL EXPERIMENT STATION, Logan, Utah.
Annual report, 10th.
Bulletin, current nos. (gift).
- VALENTINE MUSEUM, Richmond, Va.
Annual report, 1899 (gift).
- VAN DENBURGH, JOHN (the author), Los Gatos, Cal.
1 pamphlet.
- VERMONT AGRICULTURAL EXPERIMENT STATION, Burlington, Vt.
Annual report, 12th.
Bulletin, current nos.
- VERMONT UNIVERSITY, Burlington, Vt.
Catalogue, 1899-1900.
Contributions from Department of Botany, nos. 1-5 and 7.
- VICTORIA. FIELD NATURALISTS' CLUB, Melbourne, Australia.
Victorian Naturalist, current nos.
- VICTORIA. PUBLIC LIBRARY, MUSEUMS AND NATIONAL GALLERY
OF, Melbourne, Australia.
Letters from Victorian pioneers.
- VICTORIA. ROYAL SOCIETY OF, Melbourne, Australia.
Proceedings, vol. 11, pt. 2, and vol. 12, pts. 1 and 2.
- VICTORIA. ZOOLOGICAL AND ACCLIMATISATION SOCIETY, Mel-
bourne, Australia.
Annual report, 36th.
- VIGNOLI, TITO, Milano, Italy.
1 pamphlet (gift).
- VIRCHOW, HANS (the author), Berlin, Germany.
Apparat zur kontrolle von Röntgenbildern.
- VIRGINIA UNIVERSITY, Charlottesville, Va.
Catalogue, 1899-1900.
- VOLTA BUREAU, Washington, D. C.
Specimens of a dictionary of signs for the deaf and dumb.
- VOTH, H. R. (the author), Oraibi, Ariz.
Oraibi marriage customs (gift).
- WABASH COLLEGE, Crawfordsville, Ind.
Catalogue, 1899-1900.
- WASHINGTON ACADEMY OF SCIENCES, Washington, D. C.
Proceedings, current nos.
- WASHINGTON BIOLOGICAL SOCIETY, Washington, D. C.
Proceedings, current nos.
- WASHINGTON UNIVERSITY, St. Louis, Mo.
Catalogue, 1899-1900.
- WEBB, W. F., Albion, N. Y.
The Museum, current nos. (gift).
- WEISBACH, A., Freiberg, Germany.
Characteres mineralogici.
- WELLER, STUART (the author), Chicago.
A century of progress in palæontology.
1 pamphlet.
- WELLESLEY COLLEGE, Wellesley, Mass.
Calendar, 1899-1900.

- WELLINGTON ACCLIMATISATION SOCIETY, Wellington, New Zealand.
Annual report, 15th.
- WESLEYAN UNIVERSITY, Middletown, Conn.
Annual catalogue, 1899-1900.
Bulletin, current nos.
- WESTERN AUSTRALIA GEOLOGICAL SURVEY, Perth, Western Australia.
Annual progress report, 1898.
2 maps.
- WESTERN AUSTRALIA WOODS AND FORESTS DEPARTMENT,
Perth, Western Australia.
The forests of Western Australia and their development.
- WESTERN UNION TELEGRAPH CO., New York City.
Annual report, 1898-'99 (gift).
- WIEN. ANTHROPOLOGISCHE GESELLSCHAFT, Wien, Austria.
Mittheilungen, vol. 28, nos. 5 and 6, vol. 29, nos. 1-5.
- WIEN. K. K. NATURHISTORISCHES HOFMUSEUM, Wien, Austria.
Annalen, vol. 13, nos. 1-4.
- WIEN. UNIVERSITÄTS-BIBLIOTHEK, Vienna, Austria.
Feierliche inauguration des rectoris.
14 pamphlets.
- WILLARD, C. D., Los Angeles, Cal.
History of the Chamber of Commerce, Los Angeles (gift).
- WILLIAMS COLLEGE, Williamstown, Mass.
Catalogue, 1899-1900.
General catalogues, 1795-1900.
Report, 1898-'99 and 1900.
- WILLEY, N., Christiania, Norway.
1 pamphlet.
- WINDSOR AND KENFIELD PUBLISHING CO., Chicago.
Brick, current nos.
Street railway review, current nos. (gift).
- WINTENBERG, W. J., Washington, Ontario, Canada.
1 pamphlet (gift).
- WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY, Madison, Wis.
Bulletin, nos. 1-4.
Hydrographic maps, vols. 1-7.
- WISCONSIN NATURAL HISTORY SOCIETY, Milwaukee, Wis.
Bulletin, new ser., vol. 1, nos. 1 and 2.
- WISCONSIN STATE HISTORICAL SOCIETY, Madison, Wis.
Proceedings of 47th meeting.
- WISCONSIN UNIVERSITY, Madison, Wis.
Bulletin, nos. 30-34, 36, and 38-40.
Historical ser., vol. 2, no. 1.
- WISCONSIN UNIVERSITY AGRICULTURAL EXPERIMENT STATION,
Madison, Wis.
Annual report, 16th.
Bulletin, current nos. (gift).
- WOLFF, FERDINAND (the author), Berlin, Germany.
Beitrage zur geologie und petrographie Chilès (gift).
- WOODWARD, A. S. (the author), London.
Catalogue of British fossil vertebrata.
77 pamphlets.
- WORCESTER FREE PUBLIC LIBRARY, Worcester, Mass.
Annual report, 40th.

WORCESTER NATURAL HISTORY SOCIETY, Worcester, Mass.

Annual report, 1898-'99.

The physical geography of Worcester.

1 pamphlet.

WRIGHT, A. A., Oberlin, Ohio.

1 pamphlet.

WÜLFING, E. A. (the author), Hohenheim, Württemberg, Germany.

Ueber gesteinsanalyse.

2 pamphlets.

WÜRTTEMBERG. VEREIN FÜR VATERLANDISCHE NATURKUNDE,
Stuttgart, Germany.

Jahreshefte, vol. 56.

WYOMING AGRICULTURAL EXPERIMENT STATION, Laramie, Wyo.

Bulletin, current nos. (gift).

WYOMING HISTORICAL AND GEOLOGICAL SOCIETY, Wilkes-Barre, Pa.

Proceedings, vol. 5.

WYOMING UNIVERSITY, Laramie, Wyo.

Bulletin, petroleum ser., nos. 2 and 3.

YALE UNIVERSITY, New Haven, Conn.

Catalogue, 1899-1900.

Yale Forest School, 1900-1901.

ZSCHÖRNER, K. A., & CO., Wien, Austria.

Torf-industri (gift).

ZÜRICH. NATURFORSCHENDE GESELLSCHAFT, Zürich, Switzerland

Festschrift.

Vierteljahrsschrift vol. 45, nos. 1 and 2.

ARTICLES OF INCORPORATION.

STATE OF ILLINOIS.

DEPARTMENT OF STATE.

WILLIAM H. HINRICHSEN, *Secretary of State*:

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

Whereas, a Certificate duly signed and acknowledged having been filed in the office of the Secretary of State, on the 16th day of September, A. D. 1893, for the organization of the COLUMBIAN MUSEUM OF CHICAGO, under and in accordance with the provisions of "An Act Concerning Corporations," approved April 18, 1872, and in force July 1, 1872, and all acts amendatory thereof, a copy of which certificate is hereto attached,

Now, therefore, I, William H. Hinrichsen, Secretary of State of the State of Illinois, by virtue of the powers and duties vested in me by law, do hereby certify that the said COLUMBIAN MUSEUM OF CHICAGO is a legally organized Corporation under the laws of this State.

In Testimony Whereof, I hereto set my hand and cause to be affixed the great Seal of State. Done at the City of Springfield, this 16th day of September, in the year of our Lord one thousand eight hundred and ninety-three, and of the Independence of the United States the one hundred and eighteenth.

W. H. HINRICHSEN,
Secretary of State.

[SEAL]

TO HON. WILLIAM H. HINRICHSEN,

SECRETARY OF STATE:

SIR:

We, the undersigned citizens of the United States, propose to form a corporation under an act of the General Assembly of the State of Illinois, entitled, "An Act Concerning Corporations," approved April 18, 1872, and all acts amendatory thereof; and that for the purposes of such organization we hereby state as follows, to-wit:

1. The name of such corporation is the "COLUMBIAN MUSEUM OF CHICAGO."
2. The object for which it is formed is for the accumulation and dissemination of knowledge, and the preservation and exhibition of objects illustrating Art, Archeology, Science and History.
3. The management of the aforesaid museum shall be vested in a board of FIFTEEN (15) TRUSTEES, five of whom are to be elected every year.
4. The following named persons are hereby selected as the Trustees for the first year of its corporate existence:



GROUP OF SWAYNE'S HARTEBEEST — FIELD COLUMBIAN MUSEUM.

Ed. E. Ayer, Charles B. Farwell, George E. Adams, George R. Davis, Charles L. Hutchinson, Daniel H. Burnham, John A. Roche, M. C. Bullock, Emil G. Hirsch, James W. Ellsworth, Allison V. Armour, O. F. Aldis, Edwin Walker, John C. Black and Frank W. Gunsaulus.

5. The location of the Museum is in the City of Chicago, County of Cook, and State of Illinois.

(Signed),

George E. Adams, C. B. Farwell, Sidney C. Eastman, F. W. Putnam, Robert McMurdy, Andrew Peterson, L. J. Gage, Charles L. Hutchinson, Ebenezer Buckingham, Andrew McNally, Edward E. Ayer, John M. Clark, Herman H. Kohlsaas, George Schneider, Henry H. Getty, William R. Harper, Franklin H. Head, E. G. Keith, J. Irving Pearce, Azel F. Hatch, Henry Wade Rogers, Thomas B. Bryan, L. Z. Leiter, A. C. Bartlett, A. A. Sprague, A. C. McClurg, James W. Scott, Geo. F. Bissell, John R. Walsh, Chas. Fitzsimons, John A. Roche, E. B. McCagg, Owen F. Aldis, Ferdinand W. Peck, James H. Dole, Joseph Stockton, Edward B. Butler, John McConnell, R. A. Waller, H. C. Chatfield-Taylor, A. Crawford, Wm. Sooy Smith, P. S. Peterson, John C. Black, Jno. J. Mitchell, C. F. Gunther, George R. Davis, Stephen A. Forbes, Robert W. Patterson, Jr., M. C. Bullock, Edwin Walker, Geo. M. Pullman, William E. Curtis, James W. Ellsworth, William E. Hale, Wm. T. Baker, Martin A. Ryerson, Huntington W. Jackson, N. B. Ream, Norman Williams, Melville E. Stone, Bryan Lathrop, Eliphalet W. Blatchford, Philip D. Armour.

STATE OF ILLINOIS, }
COOK COUNTY. } ss.

I, G. R. MITCHELL, a NOTARY PUBLIC in and for said County, do hereby certify that the foregoing petitioners personally appeared before me and acknowledged severally that they signed the foregoing petition as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 14th day of September, 1893.

G. R. MITCHELL,

[SEAL]

NOTARY PUBLIC, COOK COUNTY, ILL.

CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the corporate members held the 25th day of June, 1894, the name of the COLUMBIAN MUSEUM was changed to FIELD COLUMBIAN MUSEUM. A certificate to this effect was filed June 26, 1894, in the office of the Secretary of State for Illinois.

FIELD COLUMBIAN MUSEUM.

AMENDED BY-LAWS.

(APRIL 25, 1898.)

ARTICLE I.

MEMBERS.

SECTION 1. Members shall be of five classes, Annual Members, Corporate Members, Life Members, Patrons and Honorary Members.

SEC. 2. Annual members shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of ten dollars (\$10.00), payable within thirty days after notice of election, and within thirty days after each recurring annual date. The failure of any person to make such initiatory payment and such annual payments within said time shall, at the option of the Board of Trustees, be ground of forfeiture of annual membership.

This said annual membership shall entitle the member to:

First.—Free admittance for himself and family to the Museum on any day.

Second.—Ten tickets every year admitting the bearer to the Museum on pay days.

Third.—A copy of every publication of the Museum sold at the entrance door, and to the annual reports.

Fourth.—Invitations to all receptions, lectures or other entertainments which may be given at the Museum.

SEC. 3. The corporate members shall consist of the persons named in the articles of association, and of such other persons as shall be chosen from time to time by the Board of Trustees at any of its meetings, upon the recommendation of the Executive Committee; provided, that such persons named in the articles of association shall, within ninety days from the adoption of these By-Laws, and persons hereafter chosen as corporate members, shall, within ninety days of their respective election, pay into the treasury the sum of twenty dollars (\$20.00) or more. The failure of any person to make such payments within said time shall, at the option of the Board of Trustees, be ground for forfeiture of his corporate membership. The annual dues of corporate members shall be five dollars (\$5.00) after the first year of membership, and no one shall exercise the rights of a corporate member until his dues are paid; and a delinquency of six months in the payment of annual dues shall be ground for forfeiture of corporate membership. Corporate Members becoming Life Members, Patrons or Honorary Members shall be exempt from dues.

SEC. 4. Any person paying into the treasury the sum of five hundred dollars at any one time shall, upon the unanimous vote of the trustees, become a life member. Life members shall be exempt from all dues.

SEC. 5. Patrons shall be chosen by the Board of Trustees, upon recommendation of the Executive Committee, from among persons who have rendered eminent service to the Museum. They shall be exempt from all dues, and, by virtue of their election as patrons, shall also be corporate members.

SEC. 6. Honorary members shall be chosen from among persons who have rendered eminent service to science, art or mechanics. They shall be chosen by a vote of the Trustees, and only upon unanimous nomination of the Executive Committee. They shall be exempt from all dues. In commemoration of the 14th day of October, honorary members shall not be more than fourteen in number at any one time.

SEC. 7. All members of whatever class shall be eligible to appointment upon committees other than the Executive Committee.

ARTICLE II.

OFFICERS.

SECTION 1. The respective members of the Board of Trustees now in office, and those who shall hereafter be elected, shall hold office during life. Vacancies occurring in the Board shall be filled by a majority vote of the remaining members of the Board of Trustees at any regular meeting.

SEC. 2. The other officers shall be President, two Vice-Presidents, Secretary and Treasurer, and an Executive Committee of four persons, who shall be chosen by ballot by the Board of Trustees from their own number as early as practicable after the annual meeting in each year. The President shall be *ex-officio* a member of the Executive Committee, in addition to the other four members. The Secretary and Treasurer may, or may not, be the same person, and the Secretary may, or may not, be a corporate member.

Any officer may be removed at any regular meeting of the Board of Trustees by a vote of two-thirds of all the members of the Board. Vacancies in any office may be filled by the Board at any meeting.

SEC. 3. The President shall appoint from among the Trustees a Committee on Finance, a Committee on Property, an Auditing Committee, and a Committee on Buildings and Grounds, who shall serve during the pleasure of the Board.

SEC. 4. The officers shall perform such duties as ordinarily appertain to their respective offices, and such other duties as the Board of Trustees may from time to time devolve upon them. The Treasurer shall give bond in such amount and with such surety as shall be approved by the Executive Committee, and shall disburse the funds of the Museum only in accordance with the directions of the Executive Committee, upon the signature and counter-signature of such officers as the Executive Committee shall empower thereto.

SEC. 5. The Executive Committee shall have full control of the affairs of the Museum, under the general supervision of the Board of Trustees.

ARTICLE III.

MEETINGS.

SECTION 1. In commemoration of the discovery of America by Christopher Columbus, the annual meeting of the corporate members shall be held on the 14th day of October in each year, except when that day falls on a Sunday, and then

upon the Monday following. At such meetings the corporate members shall transact such business as may properly come before the meeting. Special meetings of the corporate members shall be called at any time by the Secretary upon written request of twenty corporate members. In such case, thirty days' notice by mail shall be given to corporate members of the time, place and purpose of such meetings.

SEC. 2. Regular meetings of the Board of Trustees shall be held upon the 14th day of October, except when that day falls on a Sunday, and then upon the Monday following, and upon the last Monday of January, April and July of each year. Special meetings may be called by the President at any time upon reasonable notice by mail, and shall be called upon the written request of three Trustees. Five Trustees shall constitute a quorum.

ARTICLE IV.

AMENDMENTS.

SECTION 1. These By-Laws may be amended at any regular meeting of the Trustees by a two-thirds vote of all the members present, provided the amendment shall have been proposed at the last regular meeting preceding, or shall be recommended by the Executive Committee.

HONORARY MEMBERS.

EDWARD E. AYER

HARLOW N. HIGINBOTHAM

CHARLES B. CORY

MARY D. STURGES

PATRONS.

ALLISON V. ARMOUR

FREDERICK W. PUTNAM

WILLIAM I. BUCHANAN

FREDERICK J. V. SKIFF

WILLARD A. SMITH

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ALDIS, OWEN F.	JONES, ARTHUR B.
ARMOUR, ALLISON V.	KEITH, E. G.
ARMOUR, PHILIP D.	KOHLSAAT, HERMAN H.
AYER, EDWARD E.	
BAKER, WILLIAM T.	LATHROP, BRYAN
BARTLETT, A. C.	LEITER, L. Z.
BLACK, JOHN C.	McCAGG, E. B.
BLAIR, WATSON F.	McCLURG, A. C.
BLATCHFORD, ELIPHALET W.	McCONNELL, JOHN
BUCHANAN, W. I.	McCORMICK, CYRUS H.
BUCKINGHAM, EBENEZER	McNALLY, ANDREW
BURNHAM, DANIEL H.	MANIERRE, GEORGE
BUTLER, EDWARD B.	MITCHELL, JOHN J.
CHALMERS, W. J.	PATTERSON, ROBERT W.
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EASTMAN, SYDNEY C.	PUTNAM, FREDERICK W.
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FITZSIMONS, CHARLES	REAM, NORMAN B.
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GUNSAULUS, FRANK W.	SKIFF, F. J. V.
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HARPER, WILLIAM R.	SMITH, WILLARD A.
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HIGINBOTHAM, H. N.	STONE, MELVILLE E.
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DECEASED.

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By the payment of five hundred dollars.

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BLAIR, CHAUNCEY J.	MCCORMICK, CYRUS H.
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DECEASED.

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COBB, SILAS B.

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FIELD COLUMBIAN MUSEUM

PUBLICATION 6

REPORT SERIES.

VOL. I, No. 1.

ANNUAL REPORT OF THE
DIRECTOR

TO THE

BOARD OF TRUSTEES

FOR THE YEAR 1894-95



CHICAGO, U. S. A.

October, 1895.

FIELD COLUMBIAN MUSEUM

PUBLICATION 14

REPORT SERIES.

VOL. 1, No. 2.

ANNUAL REPORT OF THE DIRECTOR

TO THE

BOARD OF TRUSTEES

FOR THE YEAR 1895-96



CHICAGO, U. S. A.

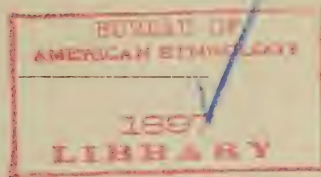
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FIELD COLUMBIAN MUSEUM

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ANNUAL REPORT OF THE DIRECTOR

TO THE

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FOR THE YEAR 1896-97



CHICAGO, U. S. A.

October, 1897.

FIELD COLUMBIAN MUSEUM

PUBLICATION 29.

REPORT SERIES.

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FOR THE YEAR 1898-99.



CHICAGO, U. S. A.

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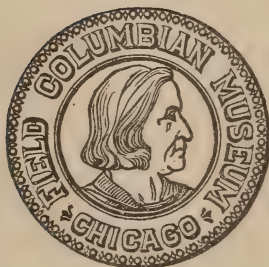
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FOR THE YEAR 1899-1900.



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